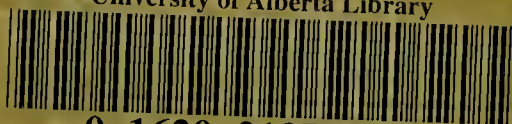


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Blue Jay

Vol. XIII

Regina, Sask., July, Aug., Sept., 1955

Number 3

Golden Jubilee Museum Issue



SASKATCHEWAN MUSEUM OF NATURAL HISTORY
OFFICIAL OPENING, MAY 16, 1955

— Sask. Govt. Photo

Saskatchewan's Nature Magazine

Founded by Isabel M. Priestly in 1942

Published by

THE SASKATCHEWAN NATURAL HISTORY SOCIETY
in cooperation with the Provincial Museum
of Natural History.



Blue Jay Chatter



By L. T. CARMICHAEL, Editor

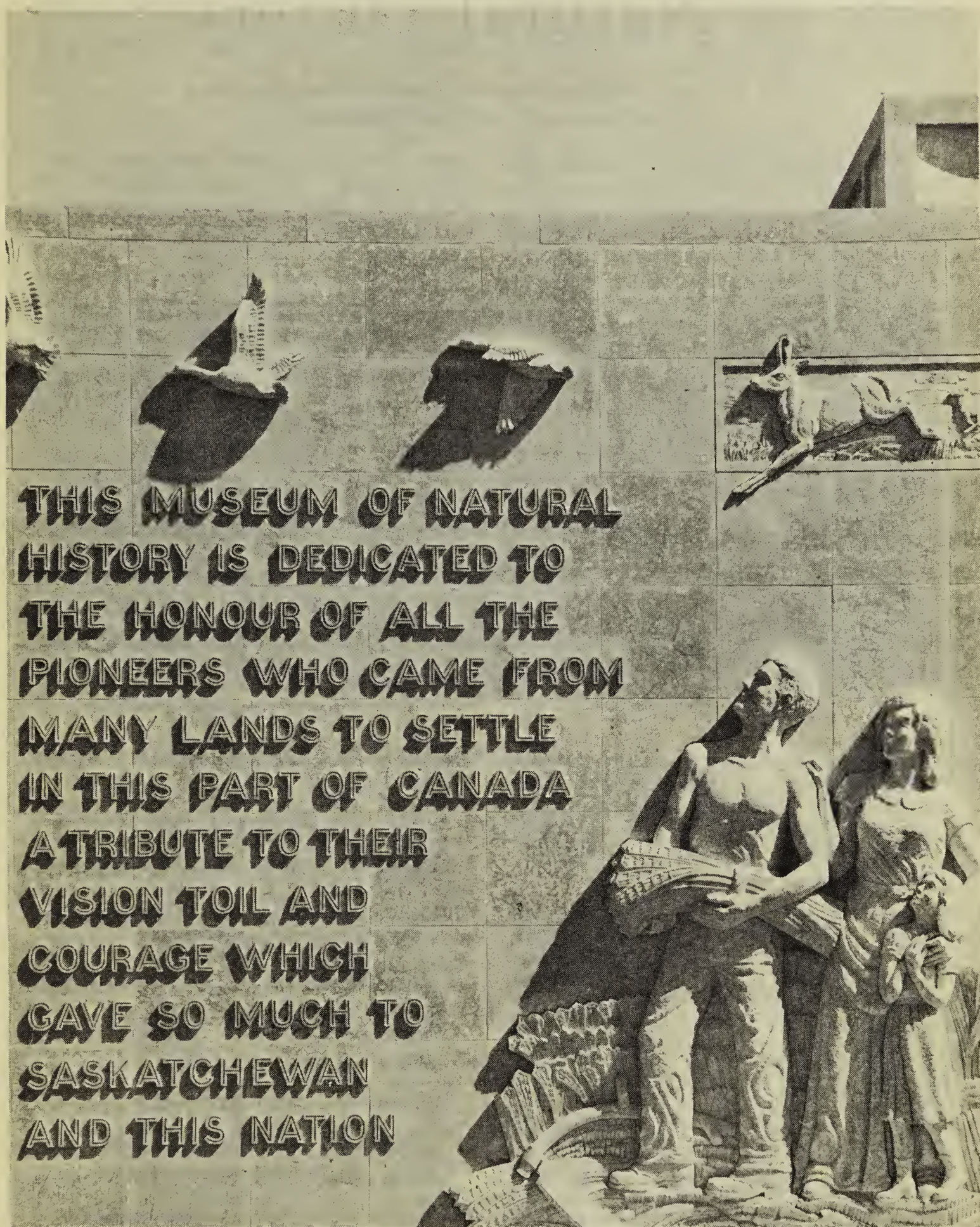
Naturalists throughout Saskatchewan, have many things to be happy and proud about this Golden Jubilee Year; the long periods of ideal spring and summer weather which have made bird and flower study a pleasure; the extensive study of and the provisions made for a more effective forest control and conservation program; the purchase of a 120-acre wild life sanctuary in the Qu'Appelle Valley by the Regina Natural History Society; the successful first annual field meet of the Society at Valley Centre, Fort Qu'Appelle but most important of all was the opening of the million dollar provincial museum of natural history, on May 16, at Regina.

This issue of the Blue Jay is dedicated to those whose untiring efforts have at last made a splendid dream come true. For many years members of this Society and the Fish and Game League have seen the need, studied the possibilities, and by resolutions and representations to the government have pressed for action. They were unconsciously spurred on to do this by the insistence, keen interest, years of planning and optimistic enthusiasm of the director, Mr. Fred Bard. With the assistance of an exceptionally competent staff, including especially the senior members, Fred Lahrman and Albert Swanston, he had built up the museum, even though housed in unsuitable quarters, until it was attracting thousands, and was literally bursting at the seams. Such action made the erection of a new structure inevitable.

The time was ripe, for 1955 was Saskatchewan's Golden Jubilee Year. The Government, wishing to commemorate in some permanent way the lives of those who pioneered and developed this country, made their final decision. What better memorial could be possible erected as a lasting monument to these men and women than a Museum of Natural History. To Mr. Fred Bard, and naturalists throughout this land, a vision has become a reality.

The following article on the Museum, was written by Mr. R. G. Young, Director, Conservation Branch, Department of Natural Resources. It was originally written for "The Dome," but Mr. Young has kindly given his permission for us to publish it. The pictures used in connection with the museum are Saskatchewan Government photographs and were taken by Mike Kesterton.

— Sask. Govt. Photo



UNVEILED BY HIS EXCELLENCY
GOVERNOR GENERAL VINCENT MASSEY
MAY 16, 1955

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The Saskatchewan Museum of Natural History

By R. G. YOUNG, Director, Conservation Branch,
Department of Natural Resources

The Saskatchewan Museum of Natural History is a monument to the pioneers of the province. It was raised to honour these vigorous people whose determination fashioned the foundation upon which Saskat-

chewan's present and future well-being is laid. The building was opened on May 16th this year by His Excellency, The Right Honourable Vincent Massey, Governor-General of Canada.



A portion of the 457 foot frieze

chewan's present and future well-being is laid. The building was opened on May 16th this year by His Excellency, The Right Honourable Vincent Massey, Governor-General of Canada.

Although not the largest of its kind it is nevertheless one of the most modern and certainly one of the most striking museums of natural history on the North American continent.

Located diagonally across a park at the corner of College and Albert Streets in Regina it appears in profile as a long, rather low edifice consisting of two wings adjoined to a higher centre section in which are the lobby and the museum offices. One wing contains the galleries and the other houses a lecture auditorium capable of accommodating more than four hundred persons. The whole building is faced with

Saskatchewan Department of Public Works.

Apart from its general design three items command the attention of the visitor as he approaches the museum from the street. On one side of the completely glazed entrance is a twenty foot high legend carved in relief on the Tyndall stone and bearing the inscription:

This Museum of Natural History is Dedicated to the Honour of All the Pioneers Who Came from Many Lands to Settle in This Part of Canada. A Tribute to Their Vision, Toil and Courage Which Gave So Much to Saskatchewan and This Nation.

Each letter is eight inches high and the whole message can be read with ease from the street two hundred feet away. To the right is a thirteen foot high figure of a pioneer farmer

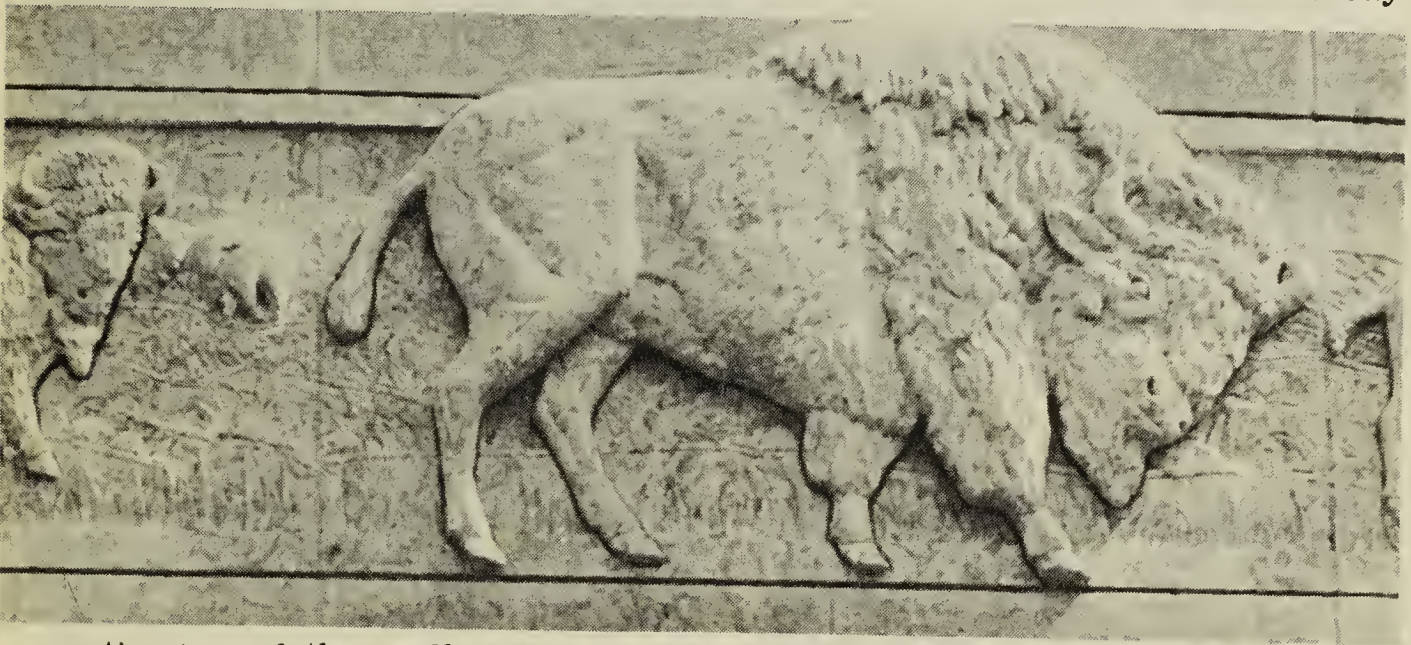
who with his wife and child are looking at a flock of geese in flight.

On the outside near the top of the walls is a twenty-eight inch high sculptured frieze which is said to be the longest in the world. This fine piece of work runs four hundred and fifty-seven feet around three sides of the building and it contains more than three hundred figures of mammals, fish and birds. Most of the fauna thus shown are indigenes of Saskatchewan. The frieze and memorial legend were sculptured by Mr. H. Garnier of St. Vital, Man.

The third point of interest about the building is the absence of win-

The wing containing the exhibits is constructed on the split-level principle thus reducing the number of stairs to be negotiated by the public. This also has the advantage of making the galleries more readily accessible. The whole display area contains a total of one hundred and one display cases.

The lower level of the display area is divided lengthwise into two sections with both having two galleries off a central hall. This floor has seventy-four cases in all. The galleries are further divided into bays composed of four cases. Two of these go to form the back of the bay



near the top of the walls

dows in the two wings. Experience in the field of museum display elsewhere in Canada and the United States, has established that direct sunlight has a deteriorating effect on the mounted wildlife exhibits. Then too, each display case can be illuminated much more effectively and dramatically by artificial means if there is no daylight to create confusing cross-lighting effects on the glass front of the exhibits. The whole building of course is ventilated by an elaborate air-conditioning system.

Running completely across the top of the glazed entrance is a planter filled with a variety of shrubs and small evergreens. The walls inside the lobby are finished in an erubescient Italian marble and in the middle of the Terrazzo floor is an attractive design of interlocking red circles which stretches from one side of the rotunda to the other.

while the others make up the two sides. The displays in each bay are related which arrangement helps to provide a logical and space-saving grouping of such exhibits. It tends also to obviate aimless wandering by the public from one exhibit to another and it helps the visitor to get the complete visual story offered by each group of displays with a minimum of Zoology, one to Geology and the other to Archaeology.

The cases in these galleries vary in width from three to ten feet. They are all five and a half feet high but are quite shallow having a depth of only two feet. Their purpose is mainly educational. Some of the bays for example, show visually the ecological relationships of one group of animals to another. Other bays portray the geological history of the earth while others show how the aboriginal folk of Saskatchewan lived prior to the ad-

vent of Euro-Canadian civilization. Considerable reliance is placed on art work, models, maps and sketches to present these stories. More will be said about these exhibits later on in this article.

The upper floor of the display area contains an entirely different type of exhibit. The cases housed here are the so-called Habitat Cases in which a three dimensional effect is created. The animals on display in these exhibits are shown in their natural state. The floor has twenty-four such cases on exhibition and is divided into two galleries having twelve each. In both galleries there are two rows of these exhibits (four to a row) set back to back so to speak to form something akin to a quadrangle in the centre of the gallery. Eleven of the cases are fourteen feet wide, eight feet high and eight feet deep. The other nine are twelve and a half feet wide with the same depth and height. Around the outside of these cases is a corridor sufficient in width to give the visitor ample viewing distance to appreciate the panorama presented by each exhibit. The lighting in the corridor is set into the ceiling and is quite subdued in order that there will be no reflection from the glass panels on the front of the exhibits. In addition at both ends of the gallery is a larger habitat case twenty feet across, ten feet deep and ten feet high. These exhibits are designed to depict large mammals such as the Bison and the Moose in their native habitat.

Inset into the central wall separating the two galleries on the upper floor are comfortable seats for those who wish to study the cases in detail. At the northeast end of the whole wing there is a large rest area comfortably furnished with chairs and chesterfields. This is adjacent to an exit which like the entrance to the building is glassed in from the ceiling to the floor.

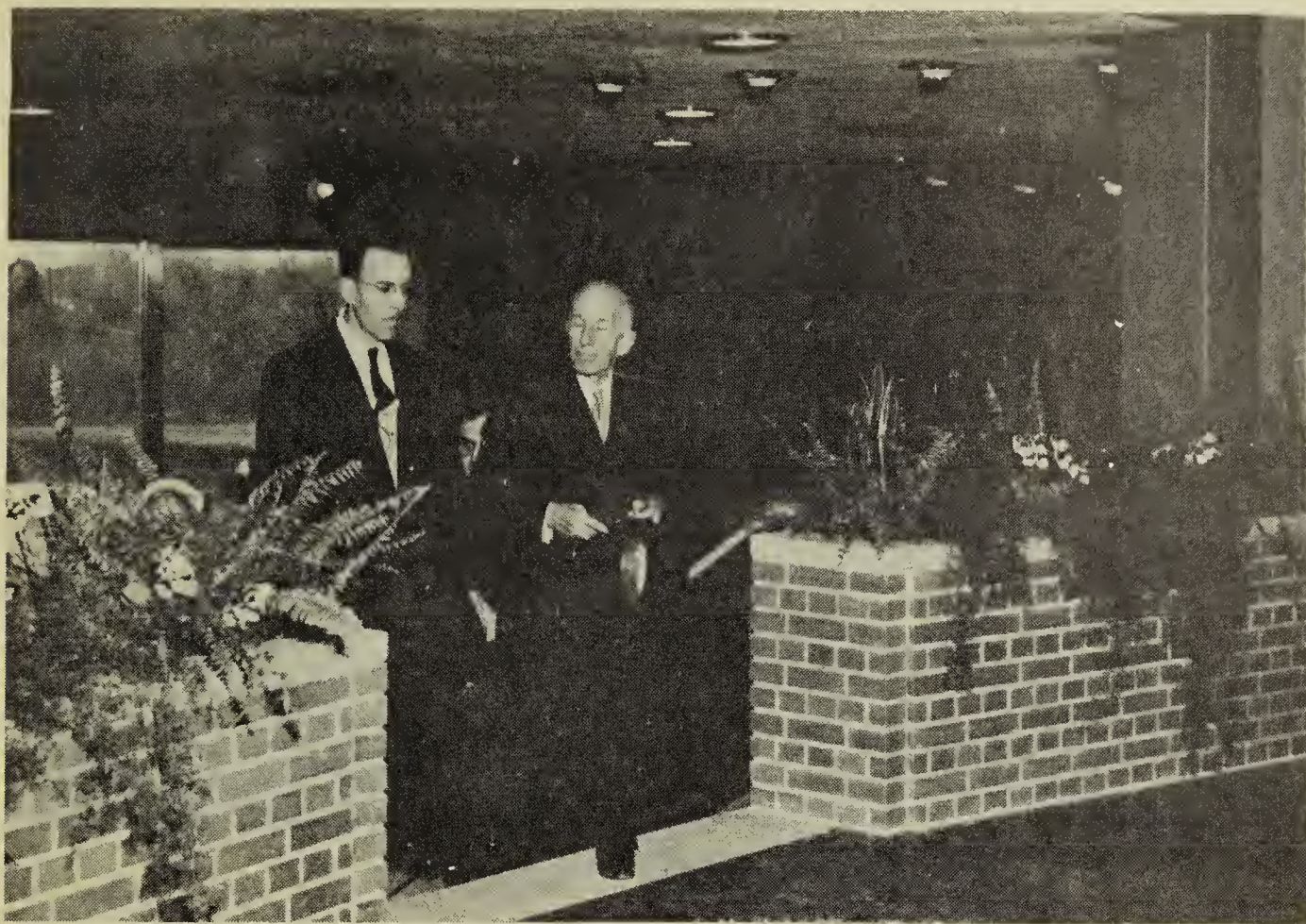
The other wing houses the auditorium behind which is a small conference and study room along the southwest end of the edifice. Certainly the most arresting feature of the auditorium is the perpendicularly waved effect of the side walls. Lights hidden behind these waves provide a subdued and restful illu-

mination. The auditorium is designed solely for lectures and film showings. Accordingly the amount of illumination issuing forth from the ceiling fixtures can be controlled to different degrees of intensity to facilitate the taking of notes. The spacing between the rows of seats is greater than normal to add to the comfort of the audience and each row is staggered relative to the one in front in order to permit a better view of the stage.

There are two other things deserving of mention which add to the general attractiveness of the museum. At points in both the upper and lower floors in the display area amplifiers provide salon music on occasions during the day. At night after the museum is closed the whole facade of the building is illuminated by flood lights set on the ground. The shadows caused by this lighting on the stone facing, the frieze and the dedicatory legend give a most dramatic effect.

As part of the original planning of this institution visits were paid by the Director and Architect to several museums elsewhere on the continent to study their designs, floor plans and programs. As a result of these studies many features were incorporated into Saskatchewan's Museum of Natural History which are generally regarded as essential in assisting such an organization to play its role as a cultural and educational centre in the community. Some of the physical features in the design of the building which enhance considerably its general attractiveness already have been mentioned. Reference too has been made to the functional nature of the floor plan which helps provide for an orderly and meaningful arrangement of the exhibits. It remains now to elaborate upon the major programs with which the museum is concerned.

By and large museum programs can be divided into three broad categories, viz: the acquisition and display of exhibits, education and research. Saskatchewan's museum of natural history will devote all of its attention to the first two of these activities for the time being. The immediate scope of the museum is to encourage a greater under-



Mr. Fred Bard, Curator, and Governor-General Vincent Massey during the opening ceremony.

standing of the intrinsic values of the province's natural resources — particularly wildlife. In this regard it might be mentioned that the museum has commanded a surprisingly high level of public interest averaging as it has between 25,000 to 30,000 visitors annually in the past few years. This is all the more remarkable when it is remembered that prior to 1955 the museum was tucked away in the cramped confines of the basement of one of the public buildings in Regina. That the attendance under these conditions was so high is a credit to the inventive genius of the present director and his staff who were able to present exhibits of such quality as to more than offset the uninviting surroundings of the museum. In its new location and with its expanded programs it is anticipated that attendance should climb to between 75,000 and 100,000 visitors annually.

As a result of the move to its new quarters, the museum is faced with the problem of redesigning many of its exhibits to take advantage of the new surroundings. This will take several years. Several of the Habitat Cases in the upper galleries

were built while the museum was in its former less spacious location. They were simply dismantled and transplanted to the new building. It is planned that these will be enlarged at a later date, to have a standard size of fourteen feet in width, ten feet in depth and ten feet in height.

These cases endeavour to create the impression that the wildlife are being viewed in their natural environment. Each case consists of a background painting on a curved surface and a foreground with mounted specimens so arranged as to blend into the backdrop. One interesting feature about this gallery is that most of the cases are based on actual scenes from Saskatchewan. Thus every visitor from the province can see at least one case which is reminiscent of his home area. The painting of the background is done usually from color photographs following visits to the actual site being portrayed. As might be expected there is a wide variety of scenery depicted. The areas chosen vary geographically from the Cypress Hills in the southwest corner of the province to the Reindeer Lake region



One of the 24 museum habitat cases.

six hundred miles away in the north-east part of Saskatchewan.

In this group of twenty-four cases, there are two which are not designed primarily to illustrate the habitats of various forms of wildlife. These are fondly referred to by the museum staff as "Fantasy Cases" and they have been included for the benefit of the small children who may visit the museum. One case contains a number of mounted young animals and birds grouped around the foot of a tree upon which "the wise old Owl" is perched. Under the museum's educational program (which will be outlined later) groups of young children are taken specifically to this case and are told the "story" by the Museum Extension Officer which the Owl is supposed to be giving to the young animals. The idea for this exhibit was prompted by Walt Disney's film "Bambi" and permission was kindly given to the museum by Mr. Disney to reproduce that particular scene for educational purposes.

The other case depicts a forest scene and includes a wide variety of birds and mammals. Its purpose is to illustrate to children the food chains that become established among animals co-existing in a common area.

Most of the work of preparing these cases was done by the museum staff. This includes the design, the carpentry, the mache and plaster casts, the acquisition and preparation of the specimens and of course the art work. The unique nature of this accomplishment becomes more apparent when it is realized that until very recently the total permanent staff numbered three.

It is part of the museum's plans to add continually to its acquisitions in order that all displays including the habitat groups will be changed from time to time. Nothing harms a museum of this kind quite as much as a static group of displays. Without periodic changes the public soon comes to realize that there is nothing further to see or to be gained through repeated visits.

During the time the museum was in its former quarters there was little possibility of preparing new exhibits other than the habitat groups. Nevertheless in the two years prior to its transfer to the new building the museum staff was actively engaged in procuring new specimens for exhibition in the cases provided in the galleries on the lower level of the display area. Still some time will have elapsed before all of the final details of the exhibits in



Antelope habitat case.

Sask. Govt. Photo

these galleries are completed. However, the general arrangement of the exhibits in the Zoology, Archaeology and Geology galleries is such that the visitor in going through each can get some idea of what is covered by the field which the gallery represents. The exhibits in each bay are related to the ones in the bay preceding and following it. The Geology gallery for example is not simply a repository of the rocks and minerals found in Saskatchewan. Its exhibits are so arranged as to give the visitor some idea of how such specimens are formed and where they are found. Thus the first bays in the gallery present by means of art work, models and maps the geologic history of the earth and the dynamic forces which shaped it period by period. As work progresses plaster models will be on display in these cases depicting the various faunal forms that were known to have existed during the various stages of the earth's history. Other cases will show by the same method some of the effects that the glaciation of the Pleistocene period has had on Canada, with particular reference to Saskatchewan. The Paleontological portion of this gallery has on display only those fossil invertebrates and vertebrates found in Saskatchewan. These cases ex-

plain what fossils are and how they are used to relate the rocks in which they are found to the geologic time scale.

A similar graphic approach is followed with the bays covering the field of Archaeology. The purpose of the exhibits is to summarize in general fashion what is known of the early inhabitants of Saskatchewan. Maps are employed to show the probable routes of migration of these aboriginal folk into Canada. Along with the artifacts on display are sketches and other illustrative materials to show how these tools were used. Other cases are given over to the types of plant and animal foods upon which these people subsisted.

Saskatchewan appears to be quite well-endowed with sites of archaeological interest. The existence of several middens is known to the museum and one of these was excavated near Mortlach, Saskatchewan during the summer of 1954. This particular site is located on the lower slopes of a former glacial spillway. Nearby are several piles of Bison bones. The method used by the Indians to kill these animals was to herd them over the edge of the spillway so that they would be killed in the fall or injured badly

enough that they could not escape being slaughtered by the Indians themselves.

Aside from skeletal remains this midden yielded a large supply of flints, pottery and other artifacts. The Carbon 14 method was applied to bones taken from the nine foot level and the age of this culture was established at approximately 3,400 years. The lower reaches of the site therefore date to between 1000 and 1500 years B.C. Widespread interest was displayed in this site with the result that the museum plans to set up one case reproducing the excavation to show how such research is carried on in the field.

The Zoology section of this floor fills two galleries. The specimens on display are all native to Saskatchewan. In the main the exhibits are given over to Mammals and Birds although indigenous species of other classes such as the Fishes, Reptiles and Amphibians are represented. There is also quite a large collection of insects.

Aside from displaying representative native fauna, the cases give the viewer some idea of the variety of habitats in which such animals live as well as general information on the effects of various environmental controls on their total numbers. With respect to the latter an attempt is made to relate these to the management programs currently in effect in order that the visitor may have a clearer understanding of Saskatchewan's Fish and Game Laws.

The other major function with which the museum is involved is its extension or informational program. Before going on to outline in detail the nature and purpose of this program it should be explained that this museum is one of three divisions under the Conservation Branch of the Saskatchewan Department of Natural Resources. The whole branch is responsible for executing an informational program designed to increase general acceptance by the public of the need for conserving the fish, fur, wildlife and timber resources of the province. In recent years there has been a tremendous increase in the number of people in the province participating in angling and hunting. With re-

spect to the latter the number of hunting licenses issued has increased tenfold in the last fifteen years. In 1954 one in eight persons held a hunting license.

This increase in hunting and fishing has had two results. In the first place the pressure on the fish and game animal population has risen markedly. This has necessitated further research in order that these resources might be more skilfully managed. Some of the laws and regulations which are based on the results of the biological research are not understood by many outdoorsmen. This emphasizes the need for an informational program explaining the significance of these regulations and the biological principles upon which they are based. Then too this increase in hunting and fishing has been accompanied by a pronounced rise in interest on the part of the public about the wildlife of the province and the department through such agencies as the museum is endeavouring to provide the information which this heightened interest demands.

The Museum of Natural History heretofore has not had sufficient opportunity to put into effect its extension program due to limitations in staff and space. However this will all be changed by the fall of this year. Plans are currently being made under which every school class in Regina and in many of the rural areas outside the city will be invited to spend at least one morning or afternoon in the museum. During its visit to the building each class will be taken on a guided tour of the exhibits and will receive talks from museum personnel explaining the nature, purpose and significance of the exhibits. The talks will be graded to the educational level of each visiting class and using the exhibits for illustration will endeavour to impart to the children some information on the basic ecological principles governing animal populations. Printed material on the various fields of natural history will also be given to the students to take home. In addition the children will spend an hour or so in the auditorium viewing films on conservation. During the films commentaries will be interjected relating the main theme of the film to Sas-



Bobcat habitat case.

katchewan. Similar guided tours and lectures will also be given to adult groups.

Another project which will be embarked upon at a later date is the children's workshop. In the basement of the museum a room has been set aside for this purpose. It is outfitted with storage cupboards for working specimens and a large work bench runs around the three walls. The children will be taught the rudiments of taxidermy including the preparation of skins, etc. They will also learn how to make mache models and will be given the opportunity to sketch the animals in the habitat cases. This program will take place on Saturday mornings in the workshop and all interested youngsters will be welcome to attend. During these sessions they will receive talks about the life habits of the animals they are studying.

One aspect of the extension program which was begun several years ago and which will be intensified is the preparation of documentary films and slide sets on Saskatchewan fauna. Three years ago an excellent fifteen minute documentary color film on the life of the Pelicans of Last Mountain Lake was produced by Mr. Bard, the Museum's Director. This film received many favourable comments and won an

international award. At the present time Mr. Bard is in the process of producing a second documentary film on the bird life of Wascana marsh on the outskirts of the city of Regina.

Plans are in effect for the production of sets of slides illustrating the phases of the museum's activities in the field of Natural History. These slides will be sent out to the Department of Natural Resources' field staff in order that they might give illustrated talks about the museum in the communities within their respective districts.

One obstacle with which many museums in North America have to contend is the fact that people in communities situated more than a hundred miles away get little if any opportunity to take advantage of the facilities offered by such institutions. This objection has even greater validity in the case of Saskatchewan's Museum of Natural History, being as it is a part of a department of government and therefore supported by public monies.

To get around this situation the museum has planned two schemes to bring some of its exhibits to those communities too far removed from Regina for their residents to make periodic visits to the museum. One of these will go into effect in the

fall. About a year ago the museum manufactured and distributed around the schools in Regina and environs a set of seventeen portable display cases containing small mammals and birds. Each case was accompanied with a printed talk which the teacher could use in explaining the case. It was an overwhelming success and thousands of children saw the cases. Because of this the number of such cases is to be increased and they will be distributed to the Department's Conservation Officers who will tour their districts giving lectures based on the cases to adult and school groups alike.

There are other informational projects to which some thought has been given of which the most interesting is a museum on wheels. The idea here is to outfit a large trailer with representative exhibits from the museum and send it on a planned lecture tour of the rural areas of the province during the summer months. This mobile museum would be outfitted with projection equipment to give showings to children in the schools during the day and to adults in the community halls in the evenings.

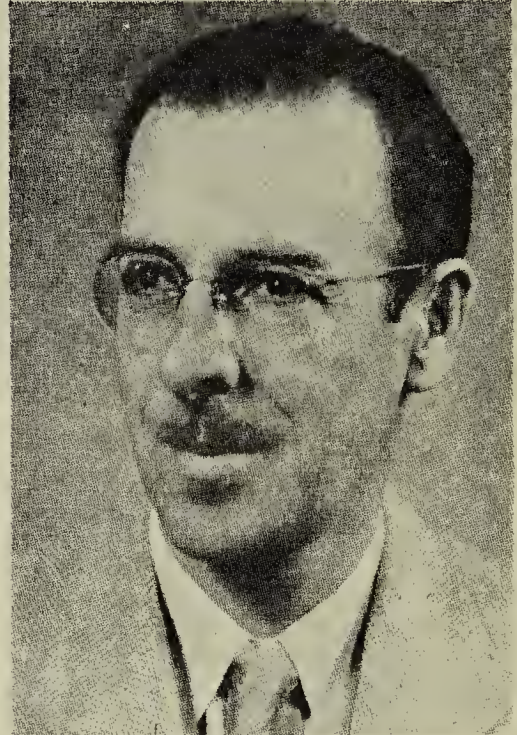
Saskatchewan's museum of natural history is primarily concerned with fostering a greater realization of the need for the conservation of the province's fish and wildlife resources. It is striving to achieve this by creating a deeper appreciation of the aesthetic and practical value of this heritage through its exhibits and through its extension program.

In the field of resources management there is a growing recognition of the fact that this wealth can not be safeguarded solely by enforcement and by legislation based on the findings of research. Such legislation is only as effective as the degree to which it is understood and appreciated by the average citizen. Getting people to recognize individual responsibility towards their natural resources is perhaps the greatest problem confronting those responsible for managing these resources today. This can be accomplished only by an active informational program. In Saskatchewan part of this task has been given to its Museum of Natural History. There is little doubt about the contribution it will make in this regard.

FRED BARD, Museum Director

From "The Dome"

From the period when our province was young, when little money was voted and less space made available for museum purposes—to the present when three outstanding men in particular (all "Fred" by name)



see the realization of a beautiful dream, time has marched along a path often hindered by the stones of discouragement, and once swept by a disastrous cyclone. These three stumbled and never looked back in the struggle to meet their goal—a Museum to house relics and treasures.

In 1928 Mr. Fred Bradshaw was appointed the first Director of the Museum, to be succeeded in 1935 by Mr. Fred Dunk who continued in the post until 1947. Since that time our present Director, Mr. Fred Bard, has been in charge. Dedicated to the task of building and maintaining the museum in spite of terrific odds and great difficulties and discouragement, and because of their dedication, we today have a Museum, second to none on this continent, and worthy of our province and its people.

The third "Fred," a man of great personal modesty, claims little of the credit for attaining this goal, and is

(Continued to page 15)

Saskatchewan Sharp-Tailed Grouse Survey

By DR. STUART HOUSTON



Provincial Museum Sharp-tailed Grouse habitat case.

Much concern has been expressed over the declining numbers of the Sharp-tailed Grouse in some areas of Saskatchewan. Since the Sharptail is our provincial bird emblem, the Yorkton Natural History Society felt that a survey of this species would be a suitable project for Jubilee year.

Publicity was obtained chiefly through the courtesy of the weekly farm papers and the "Blue Jay". Our thanks is due to the editors of these papers and particularly to Doug Gilroy, editor of the "Prairie Wildlife" column in the Western Producer.

221 reports were received, and over half of those wrote an additional letter giving extra information, besides filling out answers to the questions asked. The reports represented all parts of Saskatchewan — the most southerly report was a dancing ground one-half mile from the U.S. boundary, south of Coronach; the most northerly was from Loon River in township 59. However, there were many fewer reports from the western half of the province than from the eastern.

Locations of 118 dancing grounds were reported. Some people with large land holdings reported more than one dancing ground, and some

sent additional reports of dancing grounds on neighbors' land. Twelve people reported that dancing grounds, used in years past, had been abandoned by the Sharptails. Twenty-seven people reported that they had no Sharptails on their land, either winter or summer. Although not requested specifically, 29 people volunteered that Sharptails in their district had decreased in numbers; 8 reported an increase in numbers in recent years; 3 said numbers were about the same. Fourteen volunteered that in their opinion there should be a closed season in their district.

There were not enough reports to make any estimate of the provincial population of Sharptails. **It is likely that the results given below are higher than the true average for the province,** for several reasons. Firstly, the question asking for sites of dancing grounds likely exerted a selective effect — people who had a dancing ground to report felt more inclined to write. Similarly, people with no Sharptails to report at any time of year may have had less inducement to write. Secondly, some reporters seem to have exaggerated. This is chiefly because a flock of birds, counted as wintering on a particular section, likely range over one or two sections, and may be the

only flock for a considerably larger area than that reported on.

Statistical Summary: 693 quarter sections had an estimated 4757 Sharptails (or 27.5 per square mile.)

496 quarter sections estimated the breeding population at 1162 pairs (2324 birds) or 9.36 pair per square mile.

Many people mentioned the "migratory habits" of the Sharptails, who appear to move about in a fairly definite pattern at different seasons of the year. Steve Mann estimated that less than 10% of the birds that winter on his ranch at the foot of the Cypress Hills remain to nest. Donald Hooper reported from Somme that "the sharptails here move into the farming areas in the winter from large meadows and tamarack swamps. About six years ago, hundreds and hundreds moved into our district in the winter time, compared to only six or eight pairs that nested on our farm that summer."

The Yorkton Natural History Society has turned full details of the Survey, including the original reports, over to the Provincial Game Dept. We hope that they may find it of value, and carry on this survey in a modified form from year to year. We have provided a basic list of good observers. We feel a winter count is best taken a little earlier — in late February and early March. Interesting excerpts from the letters received may be printed in a later issue of the "BLUE JAY" as space permits.

The Society's First Annual Field Meet

By CLIFF SHAW, Yorkton

The 50 or 60 people who attended our society's first summer field meeting June 18-19 in the Qu'Appelle valley heartily agreed that it was an unqualified success and fully merits a repeat next year.

The society's headquarters for the two days was Valley centre. The weatherman co-operated by providing ideal weather except for a brief storm on the Sunday afternoon as most of the members headed home.

During the two days 81 birds and over 100 plants, in flower, were identified.

Saturday morning the group took a familiarization tour of the valley around Fort Qu'Appelle, Lebret, travelled as far east as the dam near Katepewa and visited a number of the historic sites.

In the afternoon the party journeyed to the home of Mr. and Mrs. Ralph Stueck of Abernethy. Our past president is widely known across Canada for his waterfowl sanctuary and the fine work he is doing for conservation by showing films to boys and girls and many adult groups. Towards the close of our visit Mrs. Stueck and her helpers served lunch on the spacious lawns of her beautiful garden.

Saturday night a evening session was held in the Valley centre hall. Our president Jack Shaver showed films and a number of the members had brought along their prize colored slides.

Dr. Stuart Houston of Yorkton undertook to awaken the bird enthusiasts at 4.30 a.m. Sunday to take part in an identification hike led by himself and Manley Collin of Fort San. Mrs. Collin served coffee to fortify the hikers and Manley had put out extra clothing for those who had come unprepared for the cool breezes and dewey grass.

Of the 81 species identified in the two days those of special interest were Lark and Bairds Sparrows, a Cooper hawk, Spotted Towhee, American Redstart, Orange Crowned Warbler, a Bobolink and a Yellow-breasted Chat.

Following the bird hike Lloyd Carmichael of Regina and Bernard DeVries of Fort San conducted a flower hike along the coulees, hill tops and shorelines finding and identifying well over 100 flowers in bloom.

We would also like to pay tribute to Dr. George Ledingham our efficient secretary and treasurer, and the executive for their splendid efforts in organizing the outing. It will be long remembered.

At an executive meeting later it was suggested that in 1956 the outing be held at Cypress hills possibly chartering a bus from Regina.

LICHENS

By B. DeVRIES, Fort Qu'Appelle

Our reindeer moss (*Cladonia Rangiferina*) is not as one would think a moss, but belongs to the Genus Lichenes. A Lichen on microscopic examination shows us some thing very interesting in the fact that it is not a single species but an intense cohabitation of two species, a certain alga and a certain



Vertical cut of
Cladonia
A. Algae cells
B. Fungi fibres



Single algae cell
A. Algae cell
B. Fungus fibre
C. Fungus cells

fungus. The latter belonging mostly to the Ascomyceten. Sometimes the Basidiomyceten but never the Phycomyceten. The alga, on the other hand, belongs either to the Schizophyta or Chlorophyta of unicellular of fibre form.

The substantive form of alga and fungus is based on an exchange of nutritious matter. The alga, which incidentally, can be of a green or yellow colour, provides the fungus with organic nutrition, while in return the fungus provides the alga with water and mineral saline particles. By low magnification it seems that the alga is merely established among the fungus fibres, but a higher magnification shows us that most of the time the alga forms a certain distinct layer in this fibre tissue, while the fungus forms a

distinctive epidermis. This cohabitation of alga-fungus denies each other its natural living, for we know that fungi are light shunning species. In presence of the alga, however, the fungus grows towards light and well over a large area. The alga, which forms the largest part of the organic substance of a lichen, is responsible for the species as a whole. In this cohabitation, the **alga cells** fulfill the same function as the **chlorophyll** in higher plants, assimilating carbonic acid out the air and giving the obtained matter to the whole organism. For this they need light and so we will find a variety of forms by Lichens which enables this important receiving of light. Some of the Lichen algae are fully able to live separate from the fungus, the Lichen fungi, however depend on these algae. Within the Lichen the alga propagates itself by asexual means of cell separation, the fungi is able to propagate itself by means of ascospores or basidiospores. The propagation of a Lichen as a whole is by means of numerous small round objects, each consisting of a few algae cells and closely surrounded by fungus fibres. Wind assists in transporting these small objects and where ever they may land, a new Lichen is established.

The habitat of Lichens is, generally speaking, poor soil, rock formation or on tree bark. Here we will find another amazing fact of this cohabitation of alga and fungus, it enables a Lichen to exist under very dry condition. Fungi and algae need adequate moisture for existence, united, however, within a Lichen, they help each other in obtaining organic and mineral nutrition, which enables certain Lichens to grow on these rock surfaces.

So we might see these marvelous Lichens improve the soil by slow decomposing of rock, paving the way for other plants to take root. There are more than 15,000 known species of Lichens scattered throughout the temperate zone and high mountains in the tropics.

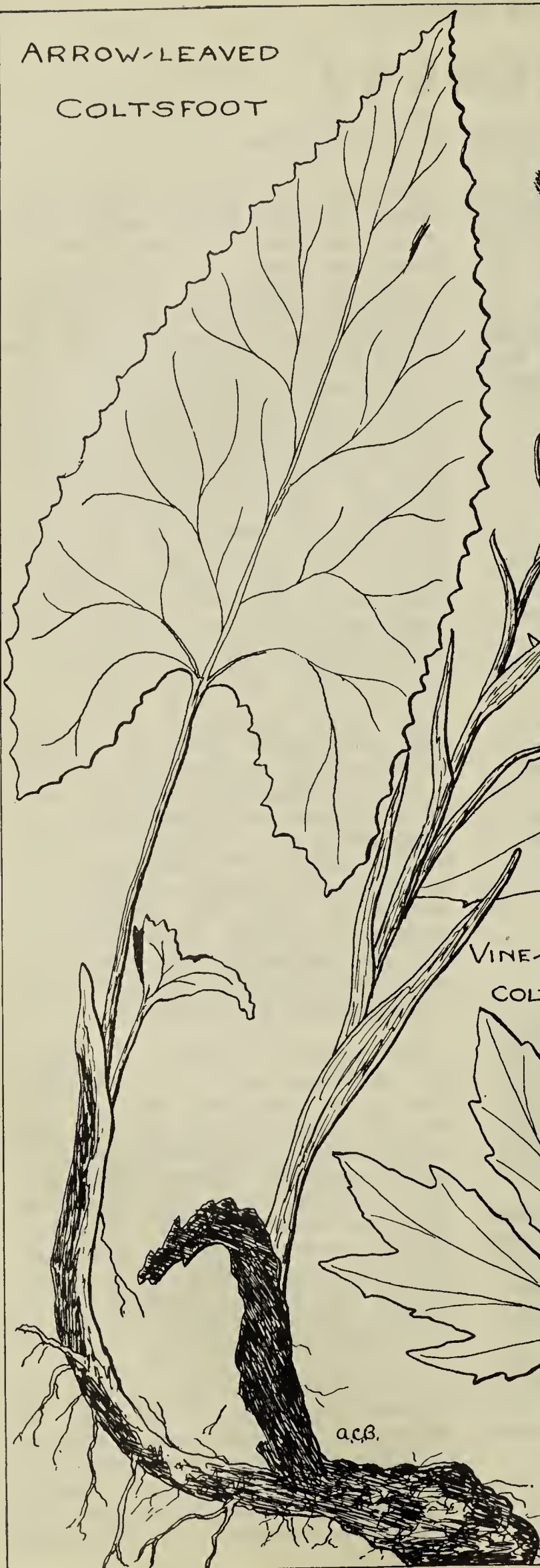
ARROW-LEAVED
COLTSFOOT



VINE-LEAVED
COLTSFOOT



PALMATE-LEAVED
COLTSFOOT



The Coltsfoot in Saskatchewan

ARCHIE BUDD, Swift Current

In Saskatchewan we have three species of Coltsfoot according to most authorities' concept of species. They belong to the genus *Petasites*, a word derived from the Greek *petasos*, meaning a covering for the head, originally given on account of the large basal leaves of some species. These plants have a peculiarity in that the flowering stem and generally the flowers appear in early spring before the leaves are produced. The leaves are all borne on long stalks from the crown of the root except the scaly, bract-like ones on the flowering stem. The inflorescence is almost entirely unisexual with the male and female flowers borne on separate plants. The flowering heads are generally whitish in colour, up to half an inch across, and soon bear fruit, each with a tuft of bristly pappus.

The most widely spread species is the Arrow-leaved Coltsfoot, *Petasites sagittatus*, which bears large, somewhat triangular leaves, from four to ten inches long, green or dull green above and white woolly below. These long stalked leaves are not lobed but are toothed along the mar-

gins and are very conspicuous in moist spots, slough margins etc. of woodlands.

The Vine-leaved Coltsfoot, *P. vitifolius*, has somewhat similarly shaped leaves, but they are deeply lobed and generally not very white woolly on the underside. This species is fairly plentiful in wet spots and moist woodlands.

The third species is Palmate-leaved Coltsfoot, *P. palmatus*, sometimes called Woodland Coltsfoot, which is a species of the forest floor and has leaves palmately divided almost to the centre, and which are only white woolly beneath when very young. Some authorities place both the latter two species as varieties of *P. frigidus* and call them respectively var. *corymbosus* and var. *palmatus*. They probably have good reason to do so but this changing and revising of the scientific names is somewhat disconcerting to the less technical folk. We, in the open south-western parts of the Province are not apt to find the Coltsfoot unless we go into the Cypress Hills, where all three species though scarce, are present.

Fred Bard, Museum Director

(Continued from page 10)

humbly grateful to his predecessors for their endeavour, their patience and the store of knowledge he has gained from their guidance. Fred Bard is one of the best qualified field ornithologists in Western Canada and is recognized as such all over the country. The erection of the Provincial Museum of Natural History is the culmination of a dream that has grown with him during nearly 30 years.

He is an individual who finds the world is a beautiful place and one who has a tenderness for trees that are gnarled and unsymmetrical — trees that, like people, have character and should be protected.

Apart from the Museum he has another project—Waterfowl Park, a field study station situated on Wascana Marsh south on McDonald Street in Regina. Twenty-five Canada geese find sanctuary there as do

two beautiful whistling swans that were injured and have been nursed back to health. One of them will fly again but the other will never take to the air as it was injured by a gunshot wound in the leg.

In this park there is none of the artificiality of man's design, and Mr. Bard's main objective is to preserve the park in its natural state. At the present time Mr. Bard is in the process of producing a documentary film on the bird life of Wascana Marsh.

He does not lament the drain that the dream has been on his time and effort and is overwhelmed by the fact that the collections resulting from years of study and search, are now housed in permanent quarters.

The new Provincial Museum of Natural History stands as a monument to the perseverance, courage and devotion of such men as the three "Freds." Its administration is in good strong hands.

Adventures of a Phony Naturalist

By ROSE McLAUGHLIN

I am not a true naturalist like most of the contributors to these pages. I like to know the names of the flora and fauna, yes, but not badly enough to dig them out of the black and white pages of the guide books. When the color plates fail me, I just find someone who can tell me the answers. I like the system, because, in addition to the information, it yields a bonus in new friendships.

But once this method failed. We had just come to Indian Head in the fall of '49, a season of unusually brilliant autumnal coloring, and on my walks uptown I frequently took a round-about way in order to admire a ladylike maple of a dainty and diminutive variety which I had never encountered before. Since we had no mutual friend to effect an introduction, some other scheme had to be devised for learning the charmer's name.

My husband suggested that we visit the Arboretum at the forestry farm, and this we did on a perfect Indian summer day, golden and still. The place was at its loveliest — driveways canopied and carpeted with gold, and the trees and hedges surrounding the flower beds a rich gold-tinged green, ideal backdrop for the exultation of color within. Beyond the flower garden lay the picnic grounds, skirted by ornamental trees and shrubs which were the aim and object of our expedition.

There was the eye-catching mountain ash, or rowan tree as it is known in Scotland. It was the bright red berries of the rowan tree that Babbie had pinned in her hair on the day when she charmed the heart out of Barrie's "Little Minister". There were dark red viburnums, lindens with broad leaves of clear gold, clumps of sumac brilliantly crimson in the sunlight, and many an unfamiliar one whose botanical label completely baffled us.

We particularly wanted to know the name of a bush spangled with great bunches of tiny red berries.

"Maybe they're elderberries," hazarded my husband.

"Oh, elderberries that you make wine out of," I exclaimed, feeling that rush of friendliness that prompts one to say, "Oh, I'm glad to meet you; I've heard so much about you!"

But all the marker yielded was a cryptic "*Sambucus Racemosa*".

We completed the circuit, but nowhere in the bright-foliaged throng could our pretty little maple be found, so we decided to try our luck at the experimental farm. Just as we were leaving, a breath-taking splash of color shone through the evergreens that screened us from the highway. Could this be a clump of the maples we sought? But no, it was identified a moment later as the new combine in the farmyard across the way.

"Sublime to the sordid — that's Saskatchewan every time," muttered my husband.

At the "Ex" as it is referred to locally, we again sought out the ornamental shrubs. The first one we came to stood shoulder high, with russet foliage and single waxen berries. The marker was somewhat overgrown, so I, at great risk to my nylons, and losing my hat and veil en route in a sort of Absalom act, crawled in to read it. It said, "Rosa". I haven't felt so taken in since the time, back in grade twelve, when I made a series of complicated tests to discover that the white substance the chemistry teacher had assigned to me was common salt.

After that we took a good look at the tree first. There were hawthorns and honeysuckles and Siberian crabs. The honeysuckle was labelled "Lonicera", and under it some exasperated soul had scrawled in pencil, "Honeysuckle". One shrub was labelled botanically, and under it in official printing but slightly smaller, like a chummy undertone, was the

word, "Nannyberry". A marker like that really gets you somewhere.

At long last we came upon the little maple we were looking for, its leaves brilliantly scarlet and crimson and orange in the burnished air. Against the sun it looked like a cathedral window. That God should have spoken to Moses from a burn-

ing bush is not the tall tale that some would make it out to be.

The marker said, "Genella, 1896". We stood there looking at it and wishing that we, and all the shifting millions of this rootless machine age, could spend a lifetime in one place, watching a genella maple growing on the lawn.

Drying Mushrooms

By E. G. EVASIUK, Q. C.
Prince Albert, Sask.

We preserve our mushrooms for winter use by canning or freezing them. In canning we sometimes are not so fortunate as some of them spoil.

But if you want to have mushrooms taste "different" try to dry them. If they are dried properly and kept in a dry place they will keep indefinitely and are really delicious.

Ordinarily, you can dry mushrooms out in the sun. First you have to slice them (don't wash) thin and then spread them out on some surface above the ground in order to have a free circulation of air. The surface should be tilted toward the sun. You will be surprised how quickly they will dry.

Last year we hit on a very wet season and drying mushrooms outside was out of the question. We had to resort to artificial means. What we did was to put our mushrooms on a window screen and then suspend our screen immediately over the furnace heat register inside the house. To prevent dissipation of hot air we put pieces of plywood on each side of the screen. This forced the air to go through the screen. As we did not want to heat the rest of the house we shut all other registers and then turned the furnace on. By next morning our mushrooms were dry and ready to store.

A Wise Mouse

By Wm. E. JASPER, Struan, Sask.

A weasel that we had watched carrying mice from the feed stacks to our woodpile, finally got into the rear of the old barn. One day I noticed him on a shelf just over the back door, where some boxes and tins were kept. A little mouse, not knowing the weasel was around, came out of a knot-hole and sat on the door casement. He was facing away both from the weasel and from the hole. As he sat there, only an inch from the hole, he caught sight of the weasel which had come to the end of the shelf not more than a foot from him.

Now the mouse knew that if he ran the weasel would see him, and one leap would be the end. He seemed to realize too that in turning the weasel might see him and be too fast. So with his eyes watching every movement of the weasel, he started to turn around, but so slowly you could hardly see him move. The weasel seemed to be able to smell him and kept hunting around on the end of the shelf. But when the mouse was quite turned around, "flip" he was gone with a noise that sounded like someone striking the door with a stick. The weasel jumped and ran, and Mr. Mouse was safely down in the wall of the old barn.

Dr. Stuart Houston is taking post-graduate study at the new University Hospital at Saskatoon. His address for the coming year will be: 416 11th Street (P.O. Box 150), Sutherland, Sask.

The Blue Jay Bookshelf

GOVERNMENT PUBLICATIONS

By MARGARET BELCHER, Regina

If you are trying to build up a modest library on some natural history topic, you should investigate the lists of government publications available in Canada and the United States. The most recent list of *Publications of the National Museum of Canada* is available from the National Museum of Canada, Department of Northern Affairs and Natural Resources, and that of the United States National Museum from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.

I want to mention two publications on birds from the two National Museums that suggest the broad scope of this service within a given branch of study. One is an unpretentious little bulletin of only 23 pages of text, *Some Aspects of Canadian Birds and Some Familiar Species*, by A. L. Rand of the National Museum of Canada, published in 1950 (Special Contributions 43-3 and 43-4). Mr. Rand has engaged in numerous intensive faunal studies, but his purpose in this paper is not that of the research scientist. He sets out simply to write a "handy descriptive account of familiar Canadian birds" for the many people who apparently desire just that when they write to the National Museum asking for "information on birds". What he has to say on such topics as numbers and distribution, habitat, feeding and nesting habits, how birds spend the night and why they act as they do, represents a kind of crystallization of Mr. Rand's own reading and experience. There follows a descriptive list of 25 familiar species illustrated by black and white reproductions by Allan Brooks and F. C. Hennessey, and a short list of bird books especially recommended to the beginner. This bulletin is recommended for teachers and students in the elementary grades, as the brief and simple presentation makes it ideally suited to

classroom work. It is definitely for beginners, and is free.

On the other hand, a publication like Bulletin No. 203 of the U.S. National Museum, A. C. Bent's *Life Histories of North American Wood Warblers* has plenty of meat for the experienced ornithologist. Published at the price of \$4.50, this bulletin of 734 pages is the nineteenth and most recent of a series on the life histories of North American birds. This monumental work is to be carried on in spite of Mr. Bent's death last year. Since Bent's life histories are much in demand by serious students of bird life, some of the previous numbers are already out of print. Current numbers should be bought when they are published, as they soon become collector's items available only at greatly increased prices.

This series of bulletins may sound rather forbidding to the average person. However, the very fact that they are *life histories* rather than technical manuals designed primarily for identification of species guarantees their appeal to a more general public. In this last bulletin of Bent's any number of fascinating facts come to light about the warblers in migration and in their summer homes. In the brief space of one book, we share the fruits of the exhaustive research of the various ornithologists who have contributed papers, writing often with much descriptive skill. In short, the book is amazingly complete and Mr. Bent suggests that "if the reader fails to find in these pages anything that he knows about the birds, he can only blame himself for failing to send the information to — *The Author*. In view of this inclusiveness, a local record that we might have, such as that of the early arrival date of the Blackpoll Warbler noted by members of the Bird Group of the Regina Natural History Society May 4, 1955, becomes significant by comparison with the early arrival date recorded by Bent for Regina, May 8.

LAST OF THE CURLEWS

By FRED BODSWORTH, Dodd, Mead & Comp., New York. March 1955.

Review by L. T. CARMICHAEL

In these days when we are thinking so much about the welfare of the Whooping Crane, rejoicing in the fact that there may be a slight possibility of their comeback, and proud of the efforts of naturalists across a whole continent to prevent their complete extermination, it would be well for every one of us to read the "Last of the Curlews", and in a glorious flight of imagination, follow this lonely bird as it wings its way about its migratory circuit from the land of the aurora borealis to that of the southern cross.

It is a story, not only of the flight, but of the disappointments, courage, fortitude, strength, love instincts and final tragedy which befell a lone survivor of the once numerous species on its trip from the Arctic to the tip of South America and back again by a different route to its nesting grounds. It is a humanized and charming story, graphically illustrating how its inability to learn to fear, coupled with greedy and short-sighted hunting methods, have combined to obliterate a species. It opens our eyes to the dire necessity for conservation and to a responsibility which is ours to see that no species, now living, be lost from the face of the earth, for:

"The beauty and genius of a work of art may be reconceived, though its first material expression be destroyed; a vanished harmony may yet again inspire the composer; but when the last individual or a race living beings breathes no more, another heaven and earth must pass before such a one can be again."

This story will be enjoyed, not only by ornithologists, but by everyone. It is not only a moving tale but a classic of English literature. One cannot help but be captivated by the charm of the story coupled with its superb English.

In June the lone Curlew arrives on the half frozen tundra plains of the Arctic, and immediately marks off its private territory and nesting ground, jealously guarding this from all other migrants, until its expected

mate joins it there. But the weeks pass and the mate does not appear. It flies alone. It, an Eskimo Curlew, rejects the company of even the Hudsonian Curlews. At last, alone and despondent, it gives up in despair, the mating instinct being supplemented once more by the uncontrollable desire to migrate south. It joins and leads a flock of Golden Plovers, the only birds capable of its own speed and endurance.

In a flight of imagination let us follow these birds as they wing their way across the uncharted airways to the south. About the first of August they rest for a while on the salt marshes of James Bay, then eastward to the Labrador Peninsula, where the fleshy berries of the crowberry add a purple tinge to the hills and plateaus. Here they gorge and fatter for several weeks in preparation of their 2500 miles of non-stop flight. Fighting cold winds and treacherous snow storms, on they go out over the stormy Atlantic, past the tip of Cape Breton Island, over the Sargasso Sea, past the Lesser Antilles, landing, thin and exhausted forty-eight hours later on the savannahs of the Orinoco. Another 2500 miles and they rest and feed on the Argentine pampas, 8000 miles from their arctic nesting grounds. Working still southward, they finally arrive during the scorching December sun on the plains of Patagonia — a nights flight from the Antarctic Ocean. There the plovers left the curlew, and once more it flew alone.

January came, and with it the feel of the Arctic's first faint call. The curlew started home. One day, at long last, a female of its species dropped down from the sky and stood beside it. Love making was instantaneous, and elated with their new-found happiness they continued the journey together. In February they were a thousand miles north, then west they turned — over the Andes, above the peaks of perpetual snow, then a long downward glide to the Pacific ocean. Working north over a parched region of sandy de-

sert plateaus between the Andes and the sea, they crossed the open ocean to Guatemala. Over Central America they met and passed the hosts of migrant birds who were flying northward to overtake the North American spring. Perhaps the most interesting part of the story to naturalists is their leisurely move northward as spring moved northward from the Gulf of Mexico to Saskatchewan.

As they crossed our own prairie, the ecstasy of their love making made them oblivious to humans and to fear, they fed closely behind the farm machinery in the field. A

trigger-happy farmer spotted them. A shot gun blasted out its pellets of death, and the female was no more. The curlew headed north in silence alone — once again he defended his territory — for it must be kept in readiness for the female his instinct told him soon would come.

In June, this year, Mr. Bodsworth's novel was purchased by Reader's Digest for inclusion in the Autumn volume of Reader's Digest Condensed Books. This is the first time that a book by a Canadian author has been accepted for use in a Condensed Book Volume.

A BOOK REVIEW

By FRANK H. BRAZIER

"*Sea-Birds*" by James Fisher and R. M. Lockley (Houghton Mifflin Co., Boston, 1954).

Aside from strictly reference books, there are a few volumes which ought to grace the shelves of every naturalist's library, whether he be casual, dilettante or professional. Most of these books, not being professional texts, are to be found in public libraries. Some of these would be Rachel Carlson's "*The Sea around Us*", Dr. N. J. Berrill's "*Sex and the Nature of Things*", Edgar Anderson's "*Plants, Man and Life*", Francois Bouliere's "*The Natural History of Mammals*", Konrad Lorenz's "*King Solomon's Ring*", Charles Darwin's "*Origin of Species*", H. G. Wells' "*The Science of Life*" and M. W. de Laubenfels "*Pageant of Life Science*". No doubt there are others but the foregoing come readily to mind. To this illustrious company I have no hesitation in recommending that "*Sea-Birds*" be added. If this book was simply a book about the sea-birds of the North Atlantic we could afford it casual interest, but it is much more than that, although the authors modestly state: "We have paused in field-work simply to offer this book as a stimulant. We intend it as no more." Stimulant indeed it is, but to more than ornithologists.

It shows how many sciences contribute to the one science — geology, ecology, biology, oceanology, meteorology, etc., all assist ornithology,

so the ornithologist must understand the other non-ornithological factors. The description of the structure of the North Atlantic, and its currents and climate, in relation to the bird life there could be used as a pattern by a Saskatchewan ornithologist in relating the Province's geology and climate to its bird life. In addition, the tables, diagrams and unique map-nets illustrate how the subject information can be best presented.

The chapter on Evolution of birds is particularly detailed and interesting, especially when discussing areas of origin of the various bird families. The fact that the North Atlantic has not been the area of origin of any important group of sea-birds will be accepted by geologists as pertinent comment on the Wegener Theory of Continental Drift. As the California Gull (*Larus californicus*) and the Herring Gull (*Larus argentatus*) both occur in Saskatchewan it is interesting to note that they are actually subspecies which, with others, form circumpolar chains.

In the chapter entitled "Sea-Bird Numbers and Man", the melancholy tale of the extinction of the Great Auk (*Alca impennis*) makes grim reading, as does the account of the inroads made by the millinery trade on the terms.

The first half of the book examines certain phases of sea-bird study such as migrations and movements, navigation, social and sexual behaviour,

which is the most valuable half of the book insofar as Saskatchewan readers would be concerned, although the latter half of the book, dealing with the birds themselves, is no less interesting. Because we do have gulls, the chapter on them is particularly interesting, especially the notes on the large gulls of the genus *Larus*, which is represented here. Unless we have given the matter some study, we do not generally realize that these gulls in their nesting colonies, or "gulleries", according to our standards, exhibit the most disgusting behaviour, which is of course the most natural behaviour according to the gulls' standards. Robbery, murder and cannibalism, even within the limits of the family, seem to be the dominant controlling factor of their numbers. Natural behaviour it may be, but the picture given by the authors of a parent gull swallowing one of its own young, and then later regurgitating it for a meal for its brother or sister is something less than charming. Interesting as they may be, it will be difficult for me to learn to love a *Larus* gull. I would be interested to learn if the same behaviour is characteristic of *Larus* gulls on inland nesting sites.

There are a number of thought-provoking passages, e.g. "From the study of the ecology of animals we are learning that their numbers are controlled primarily by the amount of food they can get, and only secondarily by their parasites and predators; and parasites are probably more important than predators. But there are exceptions to this; and the chief one is when the predator is man (another is when new predators are introduced through his agency)."

The reader of "Sea-Birds" cannot fail to gain a better understanding of birds as a whole (not to mention the sea-birds themselves, and the basin of the North Atlantic) and the delicately balanced, intricately interlocked pageant of life on earth in which everything, including birds and ourselves, daily plays a part.

If at all possible, attend the Society's Annual Meeting in the new Museum.

See inside of back cover.

Museum Assistant

Dr. Robert W. Nero of Madison, Wisconsin, has been appointed assistant director of Saskatchewan's new museum of natural history at Regina.

Dr. Nero was curator of the zoology department museum, University of Wisconsin at Madison from 1949 to 1955. He studied at that institution, obtaining his Ph.D. degree in zoology there this year, and has also done professional research in ornithology and archaeology. During the last war he served with the American armed forces in the Pacific.

In addition to assisting the director with the administration of the museum, Dr. Nero will be directly responsible for supervising and directing the museum's education and extension program. He will also organize field activities for the collection of specimens for displays, supervise preparation of these exhibits and help with designing displays.

Dr. Nero is 33 years of age, is married and has three children.

Sight Record of Black Necked Stilt

By PETER McLELLAN, Arcola

"Having lived on the prairie since 1888, I seldom now see a new bird, but on May 20th I saw three Black-necked Stilts. They came flying up a creek; one lit on a willow fence post beside me and the other two waded fifty feet away.

The upper surface of their wings was more of a dark slate color than the black back, and the white underparts became cream colored on the lower abdomen, but the pink legs were even pinker than most illustrations.

All my life I have been telling the kids that a long-legged wader on a fence picket can be nothing but an upland plover, now I shall have to say that if it has pink legs it is a stilt."

(Note: This beautiful species once bred as far north as New Jersey and

(Continued on Page 22)

Canadian Map and Place Names

NATURALISTS WILL BE HONOURED

Our readers will be interested in the following letter from A. I. Bereskin, Controller of Surveys, Regina. It would be a splendid tribute should one or more of Saskatchewan's outstanding naturalists or conversationists be honoured in this manner.

Will those who wish to make nominations please submit the names, together with reasons for the choice, to the editor. All such nominations will be presented at the Annual Meeting for consideration.

Dear Mr. Carmichael:

You are probably aware of the practice in this province of naming northern Saskatchewan lakes, islands, bays and rivers after eminent pioneers and prominent citizens so that the official map and place names of the province may perpetuate the names of those who helped lay the foundations to our present development.

On reading your interesting publication, "The Blue Jay" it occurred to me that your readers may wish to nominate some pioneer who was eminent in the work of conservation or who was prominent in the work of introducing shrubs, fruit trees to Saskatchewan or in the field of horticulture in the province.

On discussion with the Honourable J. H. Brockelbank, Minister of Natural Resources, he advised that nominations from your Society would be welcomed.

You may wish, therefore, to request nominations from your readers and select three of the most prominent in the work of conserving wild life and other resources or adapting trees, shrubs and flowers to local conditions. It is suggested that the individuals nominated whether living or not, be those whose work has been almost exclusively in the province.

A biographical sketch of the individual, outlining his contribution to the province would also be appreciated so that the necessary recommendation may be made to the Canadian Board on Geographical Names for adoption of the name as a Canadian map and place name and inclusion on future maps of the province.

Yours truly,

A. I. BERESKIN, Controller of Surveys

BLACK NECKED STILT

(Continued from Page 21)

Nebraska, but its numbers were greatly decimated by shooting, and it has never regained its former range. Its breeding range now is chiefly from Peru and Venezuela to Florida, Louisiana and California. However, it is listed as an irregular

spring straggler in the middle western states, and has been previously reported from North Dakota.

It is too bad that Mr. McLellan was unable to obtain photographs, as unsubstantiated sight records are not sufficient to place a new species on the provincial list. — C.S.H.)

Then and Now

By FRANK BAINES, Saltcoats, Sask.



Editor's note: Our Museum of Natural History has been fittingly dedicated to the pioneers of this province. Since the early days of their arrival, many of these have been ardent lovers of nature and of the great open spaces, appreciating, perhaps more than those who came later the necessity for the conservation of our wildlife resources. Typical of these is Mr. Frank Bains, whose early trials and experiences, as recorded here, are strikingly similar to the stories of scores of others, each of whom did his part in laying the foundation of Saskatchewan's parade of progress.

"Then" began in August 1883; "Now" will be the Golden Jubilee Year 1955 — so we will begin with "Then — 1883".

Imagine a family of father, mother, two girls and two boys from the ages of three to eleven years. The parents had been engaged in boot and shoe trade in Manchester, England. In some way they had acquired the desire to go to Canada, where it was said, 160 acres of fertile land could be secured for \$10.00, with some improvements and residence on the homestead. To an Englishman this seemed almost fabulous.

So it came about that the Baines family took passage on the Steamship Polynesian, and after a rather stormy passage of eleven days, landed at Quebec. From there they took train to Toronto, expecting to meet old friends. In some way they didn't meet the friends, but they did meet a silver-tongued land agent, who soon persuaded them that Crescent City, Assiniboia, North West Territories was the modern Garden of Eden, and all it needed was Adams and Eves and some kids.

In a week they were on the road by way of Detroit, Minneapolis, Emerson and Winnipeg. At that time the C.P.R. — the only beginning of a transcontinental railway — was not completed along the north of Lake Superior, making the detour into the U.S.A. necessary. In fact the railway was completed only about as far as Moose Jaw that year, but it was being pushed westward as quickly as possible.

At Broadview the newcomers were met by a good driver, a team of horses and a covered wagon. They were told to be ready to start early next morning. This was done and with much excitement the party got on the road north of Broadview. In good time they arrived at the top of the hill and prepared to go down the Indian trail into Qu'Appelle Valley. The wagon wheels were chained together for the steepest parts of the road but the descent was made in safety.

Then came the crossing of the river on the Indian ferry. The team and wagon were driven onto a large scow, the gate closed, and all were drawn across by a long rope at-

tached to a windlass. Going up the hill things were very much in reverse. Blocks were placed behind the wheels whenever a flattening of the road made it possible to give the horses a rest. So by a series of spurts and rests the ascent to level ground was completed at last. Night was close at hand so camp was made soon after the top was reached.

For the children this was one grand picnic but to the parents it began to look as though homesteading would not be all roses. Supper was prepared and eaten. Beds were made in the wagon for the women and girls — under the wagon for the men and boys. Then to bed.

Just as all were becoming drowsy and the fire was dying down, there came a long drawn wail — Whahoo hoo hoo. "What's that?" came from the wagon box. The driver answered by saying, "Oh that's only wolves." "Wolves! Will they eat us?" This in all seriousness from the wagon box. "Oh no, they always eat the men under the wagon first and by the time they've finished your husband they won't want any more." This from the driver who certainly loved his joke, but it was not at all assuring to those who had been brought up in the city on the tales of Little Red Riding Hood and the Big Bad Wolf. However, nothing happened and all too soon the driver called out "Roll Out". Presently we were again on the long, long trail awinding.

Toward night some tents were sighted and one of the newcomers suggested that these must be people from Crescent City out for a picnic. "Oh yes", said the driver, "they're having a picnic alright".

When we drove up beside one of the tents and stopped my father said, "Well, don't stop here, we must get on to the city before dark". "But this is Crescent City and that's your tent. I am unhitching", and he immediately proceeded to do that.

What did he mean? Where is the Crescent? And where oh where is the city? Six tents and one log shanty with a roof. This can't be it! Maybe it's another of his jokes. Some of the occupants of the other tents came and assured us that this was Crescent City. There was no-

thing we could do but make the best of it for the night. Perhaps morning would throw a new light on the situation.

But the night was not over yet. Just as we had settled down for the night one of those August thunder showers rolled in from the west. Of course every flash of lightning, and there were many, showed up to advantage through the tent and many of the flashes were accompanied by crashes of thunder that shook the earth on which we were trying to sleep. Rain came down in such torrents that soon a pool formed near the tent door, and someone asked if there was going to be a flood. Wolves last night, water tonight! What next? Bailing out the water that began to get near the beds was next in order. But at last the fireworks began to die down, the thunder rumbled and grumbled off into the distance and finally rest and oblivion reigned over all.

But oh what a beautiful morning! The rain had washed everything clean, even the air smelled as "fresh as a daisy kissed by the dew". The rain drops still hung on the grass and bushes and glistened in the light of the morning sun.

Father took up his muzzle loading shot gun and soon brought home two Sharp-tailed Grouse. That, when fried with bacon, made a breakfast fit for a king — certainly fit for the new settlers.

Of course it turned out that this was Crescent City. "It's all very beautiful but of course we can't possibly stay here. Oh no!" But before you go back you must pay your return fare". "Impossible". So it was the "devil or the deep sea", or rather the prairie — and the devil lost out again.

We will pass over the dangers and difficulties of the first winter but we should mention the patience and kindness of the Indians who lived in the Okanese Indian Reserve near by. Although the settlers overstepped their rights with regard to the Indian Reserve, and although the Indians far outnumbered the settlers, yet no one was molested or injured in any way. In fact my earliest remembrance of encounters with the Indians was when I was given half a bushel of potatoes in the spring of

1884. They had been kept in a pit and were in excellent condition. This came, too, at a time when potatoes were not even thought of, with Broadview sixty miles away and no road for winter. Certainly the Indians set us a good example and this, no doubt, made the settlers at least try to live up to their part. When the so-called Indian Rebellion of 1885 broke out there were no old scores to settle.

Early attempts at farming were very disappointing. Invariably the wheat was frozen before it was ripe. There was no one to give advice, no experimental farms — so things were done on a trial and error basis. Then, too, the land was very fertile, very new, and when properly worked it grew crops luxuriantly, but this made it late in ripening. The varieties of Red and White Fife took longer to mature than those used later. More attention was paid to getting the crops in early, after repeated failures. Still grain growing had been so disappointing that many in our locality turned their efforts to stock raising. Cattle, especially, did well on the upland pasture and the peavines in the bushes.

One of the outstanding features of the times was the abundance of so many kinds of game. Buffalo had only just been nearly exterminated but their bones were scattered in such abundance as to give definite evidence of their former numbers. Yet this had to be before farming could be successful. Black Tail or Mu'le Deer were the only kind here at that time. Later they gave place to Virginia or White Tail Deer. But it was the birds that were so much more abundant at that time than now. Ducks, geese, grouse, cranes, plovers, snipes, were here by the thousands, probably by the millions with regard to ducks, geese, cranes and grouse.

Geese and Cranes — Sandhill and Little Brown — made a regular practise of nesting here, but the stately Whooper went further north, though they always stayed here for a time during their spring migration. Today it is a very rare thing for a goose or a crane to nest in this locality. Whooping Cranes are doomed to extinction. Pinneated Grouse are gone. The Passenger Pigeon of Eastern America is exterminated.

The dancing grounds of the Sharp-tailed grouse are all forsaken and their numbers are so reduced here, that there is probably only one now, where in the early days there would be one hundred.

Actually we are a race of exterminators — killers, so ruthless, so foolish in our killing. Although we have made the Sharp-tailed Grouse our provincial bird emblem, yet we proceed merrily on with a policy that looks as though it will lead to its extermination.

And all the while we tolerate at least two pests that are causing us much annual loss; I refer to the rat and the magpie. I consider them in the same class. Probably the magpie is the worst enemy of all to the Sharp-tail. Certainly they have increased alarmingly lately. They raise as many as fourteen at a brood and they are clever enough to survive. They have even caused much injury to sheep and cattle by pecking at an open sore and preventing it from healing. Why not turn our attention to them for a change.

Probably enough has been said about "Then", although only the surface has been scratched. Now let us glance for a short time to "Now".

In seventy-two years great changes have taken place. From oxen and horses to cars, tractors and aeroplanes, has been a big jump. Our capacity for production per person has probably more than trebled. But so far our means of distribution has not kept pace. No doubt the Hudson Bay route will be developed much more rapidly in the near future.

When our mines begin to operate; when our oil wells come fully into production and our increased productive capacity along agricultural lines finds a better outlet, then we are bound to have an increased population that will create a local demand for much more of our agricultural products, and perhaps our surplus will cease to be a burden.

This is certainly a land flowing with milk and honey, also many other good things. It has a great future if we don't blow the top off with atomic weapons. Why not turn our attention to peaceful pursuits for: "Whatever a man soweth, that shall he reap". There is no escaping that law.

The Birth of a Dragon Fly

By COLIN G. DOWSLEY

About five years ago, when age had caught up with me, I retired from a Canadian bank and took root in the delightful village of Athens, in the interior of Leeds county, Ontario, which borders the St. Lawrence river.

Five miles from Athens is Charlestown Lake, in my view the prettiest Lake in this part of Canada. It contains 144 islands, on one of which I have a small cottage. I live there from May until October, and spend a good deal of time communing with and studying Nature.

By providing some inducements I have coaxed to my little island kingdom (less than half an acre) a number of useful birds, 87 pairs of purple martins, 15 pairs of tree swallows, a barn swallow, a kingbird, a phoebe, a robin, a chipping sparrow, a song sparrow, a Baltimore oriole, and though unwanted, a starling.

Then, too, I have some fish. For years past, a four-pound black bass has inhabited the lagoon each spring and for several weeks after the hatching, the male rides herd on his many thousand progeny as they course in a leisurely manner just beneath the surface.

Near the kitchen door I have about 30 sunfish, always hungry. They are smart little fellows and should make good ball-players, for when I throw food out into deep right or left fields, the whole group will quickly turn and speed in that direction before the food has yet touched the water.

I made friends last summer with a little bass, about three inches long, that selected a parking place under the motorboat at the dock. He was always there, and not at all timid, for, when I would put my finger in the water near him, he would nibble it.

The highlight of my years at the lake, however, occurred last summer and was the most amazing transformation I have ever seen — the birth of a dragon fly.

I had known that a dragon fly emerges from a nymph, which, until the proper moment, spends its entire life under water, usually buried in the sand or mud, excepting its eyes which protrude like periscopes. These nymphs, when ready, which is usually at night, crawl out of the water and climb rushes, nearby trees, or the sides of buildings only a short time before the transformation is to take place, and fasten themselves there as their final act.

When out near the woodshed one day I noticed on the cement walk near the water a nymph that was still wet, so I picked it up and took it to the veranda where I put it in a glass tumbler together with a thin chip of wood. In a couple of minutes it climbed up on the chip and dried out.

Then, as I watched, I saw a lump form at the back of the neck and shoulders, and in about a minute two large greenish balls came through a rift in the nymph's hide. These were the head, or rather, the 10,000 multiple eyes of the dragon fly.

As I watched, the head came completely through, moving and twisting. In about five minutes more the shoulders emerged, and wriggled about, followed in another five minutes by half of the torso. Each of the forelegs then appeared in turn and stretched itself full length.

The fly was building itself sideways the while, and what had now emerged was almost the size of the original nymph. In another five minutes, the second pair of legs made their appearance. Then in a few minutes more came the hind legs, by a process of pulling, hoisting and wriggling, like a small boy extricating himself from tight-fitting combination underwear.

When all six legs were free, the fly leaned backwards from the perpendicular and rested for about five minutes, without much further bodily movement, but enlarging itself in all directions, while the head and body progressively changed colors.

I noticed the absence of wings and could see only four curved yellow marks where they should be. As I watched, these yellow marks built themselves outward, fairly solidly, but thinning out as they grew. In a very few minutes they were about half an inch long and were becoming thinner and transparent. In another few minutes the gossamer wings were forming with a multitude of veins or ribs; they were an inch or more long and nearly complete.

Then that part of the dragon fly which had by now emerged, and which was much bigger than the nymph ever was, lurched forward, seized the chip above the nymph's head, and astonished me by commencing to pull out the tail, little by little, and then to drag it straight out behind. It was transparent like a glass tube, had parallel sides, and you could see the alimentary canal throughout its length.

As I watched, the tail lengthened, became thinner and commenced to change to a darker color, after which it built a bulbous end on itself. Gradually the whole tail turned brown, then black, and developed lateral yellow rings.

By now this marvellous insect was nearly complete and no further large change took place. It rested and fluttered its wings from time to time as though testing them out, and then further decorated itself with new colors.

In a little while it flew out of the tumbler and got on the wire screen and flew spasmodically a few inches at a time. The eyes, which at first were light green, were now blackish from constant wiping with the fore-legs. It began to fly greater distances and then took a long flight of 10 or 12 yards.

By now it was a fine-looking, powerful fellow, and as it had not yet had any breakfast I felt it was ready for the war on mosquitoes, so I opened the screen door and let it go.

It flew into a cedar tree about 10 yards away, and I have not seen it since. It might at least have bade me "good-bye" and come back once in a while to say "Hello".

Patterns of Joy: Jubilee Year, 1955

By ELIZABETH CRUICKSHANK

"Sound the Jubilee trumpets" said the swallows: barn, bank, cliff and tree swallows as they arrived on a cold gale-filled day in mid-May. Some of the sturdier continued to fly low in graceful rhythm but hundreds of them settled wearily on the rich brown earth or the dark green grass, an iridescent moving mosaic of steely blue-black, pure white, brown and chestnut.

So had come the companies of white-throats, white-crowned, the juncos and the thrushes, the myrtles, the yellow-heads in crowds, as if on special invitation to help Saskatchewan people celebrate.

We had always seen single thrashers. To our surprise one day we saw a whole family tumble from a nest and hurry through the grass.

To have never seen a dowitcher then have eight land on a slough before us, then ten, then twenty! Could we ring the bells this year 1955! Avocets phalaropes, rails, phoebes (Say's), towhees, blue-birds, sandpipers, all have made this year memorable.

And the dragonflies, were there ever such crowds of them! One we thought a bird as it plummeted down to swim in the creek, its gossamer wings glistening like beaten copper in the sunlight.

Of all the colourful parades this year none could surpass the cone-flowers' gay displays, their lavish golden banners flying, their brown standards straight and tall. And no parade could have been more orderly than a ribbon of black ants we followed as they marched up and down and round about the sandy hills in search of a new home.

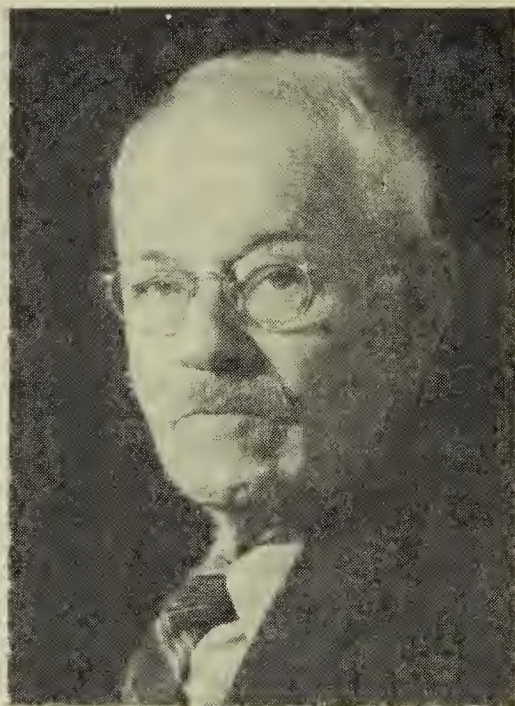
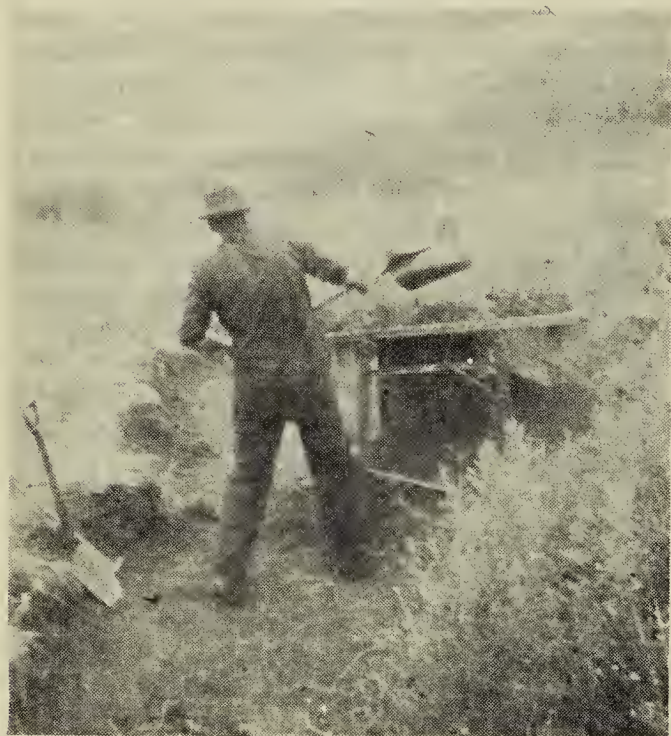
Not all our golden experience had to do with crowds, however.

There has been an altered look about the land this year — so much water on the prairie and in the valleys; such lush growth; such haunting fragrance from sweet clover and thistle vying with each other;

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Spade and Screen

By FRED S. ROBINSON



W. H. RAND

Pioneer Canadian Archaeologist

The late W. H. (Harry) Rand who was curator of the Manitoba Museum 1935 to 1946 began collecting Stone Age relics in England when he was a young man. He quickly interested the British Museum in his finds and had the opportunity of seeing some of that institutions' top scientists do excavating work on some of the earliest stone age sites in the south of England. When he left England for Canada, his collection of early flints was donated to the Museum in Colchester. Harry Rand settled at Carberry, Manitoba and soon began using his spare time to study early North American Stone Age. At this time no work or scientific investigation had been done on Western Canadian Indian Relics for this was 1915. The Carberry plains were rich in prehistoric material, but during his twenty years there he was not able to arouse any interest in his finds nor have a single visitor from an established museum come to Carberry to look over his discoveries. He had the field to himself, you might say, and it was fitting indeed that when the Manitoba Museum was organized in the early '30's the Carberry Collection of W. H. Rand became the foundation of the Museum's Archaeology exhibit and

Harry himself, the Museum Curator. This was the opportunity Harry had needed. He put his early scientific training to work and with the enthusiasm of a true collector he began to untangle some archaeological puzzles of Western Canada. The stone Mosaics of the White Shell Forest in eastern Manitoba were studied, photographed and attempts made to date them. Mound-builder sites of south western Manitoba were excavated and dated. A collection of Saskatchewan Midden material, written about by W. J. Orchard was placed in the Manitoba Museum. Mr. Rand rated these "Midden" finds as the most important in the west. He said that these finds would be the "Key" to accurate dating of plains Indian Occupations. How correct he was. The Mortlach Midden site was discovered in 1949 and in 1954 was scientifically excavated by Boyd Wettlaufer and all its' strata dated with the modern Carbon 14 Method. But Harry did not live to hear his forecast realized. He died in May 1947, at age seventy-six at Manson's Landing, British Columbia. All his life he had been a great student of nature, but his first love was Archaeology. He was a real pioneer in Canadian Archaeology.

Midden Points

A. J. HUDSON, Mortlach



Actual



Size



The makers of these points were late-comers; their artifacts are found close to the top sod throughout the Besant east of Mortlach, and at one site at the west end the distinctive points are the main ones found. Their lateness is also indicated by the presence of a small percentage of trade goods. The arrowheads are small with generally square bases and square notches and sometimes the bases are smooth. Occasionally there are straight triangular points without side notches.

Pottery is plentiful and well decorated; also bone artifacts, especially bone handles, and shell ornaments. The only grooved hammers or pounders found to date in the Besant valley have been associated with the midden site. No stone hammers or bone handles have been found at any earlier level. I should judge that, in their manufacture, grooved hammers require more and longer work than artifacts made by flaking. As surface finds on the prairie, grooved hammers are fairly plentiful while midden points are not. This latter may be due to the practice of concentrated mass slaughtering of bison inside valleys and ravines. At the resulting bone piles, the midden points are plentiful. It is worth noting that, whereas at earlier levels the bones are always much broken up, that is not true of the bones at the slaughtering midden. It would suggest a change

to pounding the bison and thus more plentiful supplies.

We need to know the distribution of these midden sites both inside and outside Saskatchewan. I have a report of midden points being found at Lake Lenore, north-east of Saskatoon.

Bone handles were made from rib bones. Some are decorated with side notches, sometimes in paired groups on opposite edges; occasionally there are diagonal scratch marks. There is some dispute as to their use. I have a considerable number and in every case the end notch is much too small to insert an ordinary scraper. They could have been made to insert a point and the base used as a scraper, but I have no proof of this as I have never found one with an insert of any description. Anybody who ever finds one with such an insert should take special care to preserve it as it is, and if the insert is broken, look for the broken piece. Camera and witnesses would be in order because that is the kind of evidence much in demand for such occasions.

Please send all contributions for
the pages direct to

FRED S. ROBINSON,
2100 YORK ST., REGINA

The Colored Hills

By RAY PETERSON, R.R. 2, Tofield, Alberta

In time to a steady drumming of thunder a grey host of rain clouds marched steadily across the sky. A light breeze sprang up, fanning a delightful coolness into the air.

"Let's go for a short walk, anyway," Kathryn said, glancing at the restless sky. "A bit of rain won't hurt us."

Full of enthusiasm, we left the yard. We crossed a piece of shortly-cropped pasture and entered a meadow of shoulder-high slough grass. Bright green, and topped with heavy seed plumes, the grass throbbed to the gentle crooning of the wind. On a nearby pond a pair of coots bobbed erratically over the water. Their dark forms blending with the cloud-shadowed water, they seemed to be living symbols of the approaching storm.

Our path climbed from the meadowland to a low ridge. We turned for a moment. The hayfield we had just left looked like a huge carpet subtly tinted and patterned with the varying greens of different varieties of grasses. In the background rose the rolling contours of a field cloaked in the purple of countless alfalfa blossoms.

We walked on, stopping to pick a sample of fleabane daisies and a few early asters. In a small pothole was found a large clump of Arrowhead. A cluster of their graceful leaves and a spray of their pretty white flowers joined our growing bouquet of wild flowers.

We topped another rise and another meadow spread below us, green with the lush growth of timothy and redtop and ornamented at the far end with a golden wealth of sweet clover. From the south, sweeping down to the grassland, tumbled the dark green slopes of bush-covered hills. Marking the boundaries of woods and meadow, a glowing red ribbon of fireweed painted its bright message that from the ashes of an old life, a new life can be created. On the north side, a series of open sidehills blushed prettily with Indian paint brush in full bloom.

From a distance the Indian paint brush offered a general rose coloring, but on closer inspection a vast range of soft colors could be picked out. We revelled in the many shades of pink and rose. Occasionally, there were clumps of beautiful cerise and clusters of salmon. Much rarer were white flowers and one plant was found with green heads tipped with flecks of maroon.

The muttering of the thunder had grown into a great bass voice pouring out an ample warning of the coming rain. Birds and other wildlife had apparently taken its heeding early for our glimpses of Nature's folk were very scarce. Reluctantly we arced gradually for home.

Our short Sunday walk was at an end. As we entered the house and the first drops of rain began their liquid tattoo on the roof, we shared a thought in common. Nature is of God's creation and in respecting and admiring her — His handicraft, surely we gain knowledge of the Artist, himself.

FEATHERED NEIGHBORS

(Continued from page 31)

Often the hawks will seem to fly for the sheer delight of flying. The pair climb high into the air together and glide down, wings motionless.

As I write this I can see a Barn Swallow flying near the male hawk. The swallow is just daring him to come near its nest. They circle, climbing higher and higher, until they are almost out of sight. Suddenly, the hawk darts toward the earth, the swallow close behind. Soon they separate and each flies its own way. The hawk zooms low over the windbreak and a Kingbird, uttering its alarm note, darts frantically at the Sparrow Hawk. The hawk flies higher and the Kingbird goes back to its nest.

Soon the three young birds will be big enough to band and then it won't be long until we see them flying with their parents.

We hope the Sparrow Hawks will return again next year and raise another family in one of our nest boxes.

Boys' and Girls' Section

The following two essays have been selected as the winners for the final stage of the Jubilee Essay Contest. The donors of the prizes selected by the competitors will be Mr. Frank Roy, Saskatoon and Mr. Jack Shaver, Regina.

The judges have not yet been able to determine the grand winner of the \$50 camera. After consultation with Mr. Dick Bird, of Bird Films, Regina, the winner will be selected and the announcement made in the fall issue of the Blue Jay.

Feathered Neighbors

By ANNE MATTHEWS, Age 15,
Nipawin

Have you ever watched a Sparrow Hawk, high in the air, watching with its sharp eyes for the slightest movement of a mouse in the grass? It is wonderful that they can hover so motionless with only the tips of their wings moving.

Last year a pair of Sparrow Hawks found a nest box we had beside the house. Every day an egg was laid until there were five and the parents then sat on them for weeks. Finally, five scrawny youngsters replaced the eggs and the old birds could be seen all over the farm, hunting so their babies could survive. Within a few days an almost indescribable smell from the remains of mice and gophers filled the box.

When the young hawks were feathered we brought them down from the nest to band them and to take a picture. Oh, what a time we had! As soon as one was put on the ground it fluttered away and it was some time before the five were close enough together for a good picture.

Soon after they began to fly my brother caught one in the field and brought it home. It stayed all day and we fed it pieces of meat. Towards evening it flew away.

This year another pair of Sparrow Hawks have a family in a box, forty-five feet up in our tower. There are only three young birds this time. The parent hawks work in shifts of about two hours. One will be seen flying to the nest and it will alight on the perch on the box. It will enter the box as soon as the other comes out.

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The Sapsucker

By VALERIE JOHNSON, Age 13,
Sturgis, Sask.

One day during the late cold spring last year, I came home from school and was told that there was a Yellow-bellied Sapsucker around in the trees. I was very glad because I had never seen a living sapsucker.

It was interesting to watch the sapsucker pecking on the trees. After he had left a tree you could see all the little holes on the trunk.

Toward evening the sapsucker came and perched on the side of the porch. From a distance he looked like a clump of mud which had been thrown against the wall. We could get a very good look at the sapsucker for you could get near enough to touch him. The bird tucked his head under his wing and went to sleep on the wall.

After a while he flew away and pecked at a few more trees.

In the evening the sapsucker came, and much to our surprise, flew into the porch, and perched himself high on the rafters of the roof, where he spent the night.

During the following day the sapsucker flew around and pecked on trees. Maple trees seemed his favorites. In the evening, my mother, my sister and I were standing by the doorway on the porch watching the sapsucker. He was flying around trying to get into the porch, but we were there. Suddenly, he alighted on my pant leg. He stayed there a minute and then flew into the porch.

The next morning the sapsucker didn't do much, he just sat huddled against the house wall. After a

(Continued on page 36)

Nice Weather for Ducks

Mrs. J. HUBBARD, Grenfell, Sask.

In this area we have been blessed these last few years with an overdose of water. Fields have become lakes, roads have submerged, sloughs, dugouts and ditches are full and overflowing. This unusual abundance of water has made many changes in vegetation.

Things like Cat-tails and Water Plantain have moved from big sloughs right into the yard. Last fall instead of the usual common blue Smooth Aster and the little white Many-flowered we had numerous kinds gracing the roadsides with masses of mauve, pink and white flowers — a real show. This spring (or early summer) Slender Fleabane, usually found in small patches, was making the roadsides and pastures white with its nodding heads. In wet fields and pastures huge plants of Sneezeweed towered

over the other growth first with showy tree-like yellow bloom followed by fluffy white seed heads.

Trees are dying in many places from too long flooding, even willows giving up the ghost. The water has been good for new plantations of trees except where they were flooded.

And as the saying goes "It's great weather for ducks". Ducks by the hundreds of thousands, of every kind, shape and description. And all manner of water-fowl — Bitterns, Terns, Sandpipers, Grebes, not to mention one coot to every square-yard of water. The latest thing in this district, Black-crowned Night Herons. At first we just saw a pair along the creek to the south of us, but lately we've seen four more (suspected to be a family party) on our north land.

The Hummingbird

By LILLIAN MONA SMITH,
MacDowall, Sask.

Throat of vivid ruby,
Shimmering feathers green,
Shot with tinge of brownish —
A metallic glossy sheen,
Longish bill and slender
To sip the nectar sweet
When darting here and backing there
On lacy wings so fleet.
Just humming with vibration
Like a motor's ring
That's the only melody
You smallest bird on wing,
Swinging high and swinging low
O'er the flowers' bloom —
Perhaps your dance of courtship
And prospective honeymoon.
Not a worry, always shirking —
Never lend a bill
To wee-wifey with the caring
Of little mouths to fill.
Flitting 'round about and preening
Probably you gloat,
And no doubt you have reason —
Such a shining coat!

Wheatfields

PETER GRANT

Who can forget the glow of wheat
That ripples in the sun,
So heavy, languid, hanging down
As if its work were done.

Rich wheaten gold, with darker bars
And caves of shadow dim,
That rolls for miles and miles of
plain,
To far horizon's rim,

Moist odors of the harvest field,
So heavy after rain;
Far-drifting pollen essence blown
From ripe and ripening grain.

That swaying, whispers soft and
slow,
Of secrets of its own,
Free gifts a kindly earth bestowed,
Warm rains let gently down.

As if it knew that far and near,
Men waited to be fed,
And whispered to a hungry world,
"Behold! Here is your bread."

Owls

By HUGH McLAUGHLIN

There is a shrill wailing in the still summer night, quite haunting and out of place it seems. Visions of the source seemed to conjure a water bird — long legged and restless — but why would such a bird be active at night? It was finally discovered that the wailing one was a Ground Owl, and that its nocturnal noises were quite in line with owl activities.

They are quite a curiosity, as though mother nature had said "we will make this one different". Other owls are not very noticeable except in flight, while these little sentinels perch on the mound — generally thrown up by a gopher — beside the hole which contains the nest. Quite the determined little birds they are, and one summer they contested quite keenly with the gophers for a choice knoll and the accompanying hole. What went on below ground I do not know. There was evidence of trouble in the nest and only a couple of owls hatched the first clutch. Above ground the gophers would chase them into a short flight, but they never left and eventually the feud simmered and the owls and gophers raised their families 20 ft. apart.

The baby owls sit in a little row and there is much excitement when one of the parents return home to distribute food. They are quite hard to approach and quickly disappear down the hole. The best view I ever had was when on horseback, I could get close, as they were accustomed to grazing animals. As they grow larger (like adolescent children) they seem to be more reluctant to go underground at the first warning of the parents. The retreating heads and scolding parents present quite a family scene.

From now on life is more hazardous — they leave home. An open hole seems an invitation. Once I discovered two that had walked through a small hole in the top of a cistern near their quarters — to a watery death. They apparently like to hunt mice along the roadside. The mice scurrying from one side of the road

to the other, as we often see them at night — by car light, are quite exposed for a few seconds to the owls and that is the only reason I can see for their choice of spot to spend an evening. Thus approaching cars take quite a toll — and flat bodies, belying the appearance of size created by feathers dry into dust.

But some grow up — out of two hatches a summer, and in the colder fall the little family gather again around the ancestral home. They perch together now of course, and fly away instead of retreating underground. Home is the focal point of existence until practically freeze up, when they migrate. The same hole may be occupied several years in a row as family quarters.

Qu'Appelle Valley in July

Mrs. JOHN HUBBARD,
Grenfell, Sask.

A spin up No. 47 to the Valley and along No. 47 and the Melville Beach road on the north side of the Valley in mid-July netted some surprises.

On the south hill Bank Swallows were taking advantage of excavating done by the Highway engineers and were busily flying in and out of numerous nests made high up on the clay banks. Never a dull moment there.

Down the hill we were amazed to see the quantity of water still covering fields and pastures. The Qu'Appelle chain has a few more lakes this year.

All along the north side of the Valley the grassy hills were yellow with Prairie Cone-flowers. Millions of the things — we've never seen so many anywhere before. Lots of Black-eyed Suzans but nothing to compare to the Cone-flowers. The road itself had a fringe of white-flowered Morning Glories.

At Melville Beach not only trees were standing in the high water but electric light standards too!

Spring Migration 1955

Compiled by

We have reports from 20 Saskatchewan observers (the two Saskatoon reports were amalgamated) and two from Alberta, to forward as our contribution to the American Co-operative Migration Study. There they will be compared to the reports from other states and provinces, in an effort to learn the effects of weather on migration.

	SKULL CREEK (Steve Mann)	REGINA (Frank Brazier)	REGINA (Fred Lahrman)	DILKE (J. Boswell Belcher)	GRENFELL (Mrs. John Hubbard Jr.)	FORT SAN (E. M. Callin)	DUVAL (Geo. Herber)	YORKTON (Dr. Stuart Houston)	SHEHO (Wm. Niven)
Canada Goose	Ap5	Ap9	Ap2	Ap2	Ap2	Ap8	Ap6	Mr31	Mr31
Marsh Hawk	Mr26	Ap9	Mr12	Ap4	Mr31	Ap2	Mr30	Ap23	Mr31
Killdeer	Ap5	Ap9	Ap2	Ap4	Ap7	Ap3	Ap5	Ap3	Ap3
Wilson's Snipe	Ap25	—	Ap24	—	Ap20	Ap16	Ap16	Ap24	—
Mourning Dove	Ap30	Ap24	Ap24	Ap27	My5	Ap27	My1	Ap24	My7
Nighthawk	Jn4	My24	My21	—	—	My23	—	My23	My21
Ruby-throated Hummingbird	—	—	—	—	—	Jn2	—	My27	My21
Yellow-shafted Flicker	Ap10	Ap16	Ap13	Ap14	Ap14	Ap16	Ap20	Ap17	Ap9
Eastern Kingbird	My17	My13	My19	My13	My20	My20	My20	My18	My20
Eastern Phoebe	My7	Ap17	—	—	—	My1	—	My23	Ap27
Barn Swallow	My11	My7	My13	My6	My12	My11	My10	My29	My6
Purple Martin	—	My3	—	—	My4	My8	—	Ap27	My20
Crow	Mr28	Ap2	Mr29	Mr27	Mr21	Mr27	Mr29	Mr28	Mr30
House Wren	My10	My13	—	My28	My10	My9	My17	My1	My10
Catbird	Jn1	My16	My12	—	My19	My20	Ap12	My18	My19
Brown Thrasher	My10	My4	My12	My11	My8	My8	My12	My12	My2
Red-eyed Vireo	My28	My25	—	—	—	My29	—	My31	My18
Black and White Warbler	—	My5	My17	—	—	My22	—	My23	—
Yellow Warbler	My15	My11	My16	My21	My19	My12	My25	My18	My18
Myrtle Warbler	Ap26	Ap16	Ap17	—	—	Ap30	—	Ap24	Ap24
Ovenbird	—	My14	—	—	—	—	—	—	—
Redstart	—	My14	My17	—	—	My22	—	—	—
Red-winged Blackbird	Ap9	Ap9	Ap2	Ap4	Ap4	Ap2	Ap2	Ap3	Ap9
Baltimore Oriole	My21	My12	My17	My18	My20	My15	My19	My18	My19
Rose-breasted Grosbeak	—	My12	My17	—	—	My21	—	My23	—
Goldfinch	Jn1	My19	—	My27	My19	My22	My19	My23	My18
Slate-colored Junco	Ap3	Mr30	Ap2	Ap3	Ap3	Ap3	Ap1	Ap2	Ap2
Chipping Sparrow	My12	My7	My12	My10	My17	My1	Ap5	My8	—
White-crowned Sparrow	My3	Ap28	Ap28	Ap30	Ap28	Ap30	Ap8	—	My1
White-throated Sparrow	My1	Ap24	Ap25	My5	Ap29	Ap29	Ap6	Ap30	Ap30

Co-Operative Study

DR. STUART HOUSTON, Yorkton

It is most interesting to note that each migration wave this year seemed to pretty well cover the settled part of the province simultaneously.

NAICAM (W. Yanchinski)	LEROSS (Mrs. M. F. Brennan)	SPIRIT LAKE (Wm. Anaka)	SPIRIT LAKE (Joyce Gunn)	TORCH RIVER (C. Stuart Francis)	PRINCE ALBERT (Ed. Brooman)	SASKATOON (J. F. Roy & J. D. Hogg)	BIG RIVER (Mrs. S. Olson)	NIPAWIN (M. Street & Matthews)	PATHLOW (T. M. Beveridge)	TROCHU, Alta. (W. C. Malcolm)	CALGARY, Alta. (M. J. Cope)
My8	Ap2	Ap8	Ap2	Ap5	My8	Ap23	Ap27	Ap10	Ap9	Ap5	Ap8
Ap10	—	Ap1	Ap3	Ap8	Ap23	Ap8	—	Ap3	Ap3	Ap13	—
—	Ap2	Ap4	Ap7	Ap10	Ap12	Ap9	Ap13	Ap8	Ap12	Ap6	Ap9
—	—	Ap12	My8	Ap23	—	—	—	My2	Ap23	—	Ap8
—	—	Ap30	Ap11	Ap30	My8	My1	—	My2	Ap26	My4	My21
My25	—	My25	My15	My26	My23	My22	My23	My29	Jn7	Jn4	Jn2
—	—	Jn16	My13	Jn5	—	—	My24	My30	My24	—	—
Ap10	Ap17	Ap7	Ap16	—	Ap14	Ap21	Ap18	Ap18	Ap13	Ap23	Ap9
My20	My22	My21	My23	My21	My21	My19	My20	My19	My20	My28	My27
Ap15	—	Ap17	Ap13	Ap28	Ap13	—	My17	Ap16	—	My2	My27
My20	My11	My6	My14	My18	My23	My8	My18	My18	My12	My12	My14
Jn1	—	My24	Ap30	—	My21	—	—	Jn6	My5	—	My15
Mr24	Ap4	Mr30	Mr8	Ap5	Ap15	Ap2	Ap4	Mr30	Mr30	Mr21	Mr29
My15	My25	My13	My5	My18	My11	My19	—	My14	My16	My25	My15
My21	Jn19	My18	My18	—	My28	My23	—	My18	My31	Jn4	My21
My27	My17	My13	My21	—	My14	My18	—	—	My13	Jn4	—
—	—	Jn5	—	—	My21	—	—	My29	Jn7	Jn2	—
—	—	—	—	—	—	—	—	Ap30	My10	—	My21
My20	My17	My19	My11	My18	My18	My19	My13	My18	My10	My25	My25
My14	—	Ap27	Ap27	Ap29	Ap24	—	—	My6	My5	Ap22	My21
—	—	My15	—	—	My21	—	—	My25	—	—	—
—	—	—	—	—	My22	—	—	My18	My13	—	My21
My10	Ap7	Ap6	Ap12	Ap13	Ap24	Ap9	Ap18	Ap17	Ap10	Ap16	Ap17
My21	—	My18	My18	Jn3	My21	My19	My19	My27	My16	My25	My27
—	My22	My15	My15	My17	My21	—	My18	My12	My18	—	—
Jn3	—	My20	My25	My21	My23	My23	Jn1	My23	My22	Jn2	Jn7
Ap4	Ap16	Mr30	Ap2	Ap3	Mr30	Ap4	Ap3	Ap4	Ap3	Ap15	Ap19
—	—	My14	Ap17	Ap18	My10	My12	Ap13	My12	My12	My20	My26
Ap28	My2	My7	Ap17	My3	—	—	Ap9	My6	My9	My1	My27
Ap27	—	Ap23	Ap19	My1	My1	Ap21	Ap17	My1	My10	—	—

Hudsonian Chickadee

By TONY CAPUSTEN, Prince Albert



One day in May on the west side of Christies's Lake about three miles north of Prince Albert we saw a Hudsonian Chickadee hopping from branch to branch on a spruce tree and making querulous sounds.

After a few minutes it flew into a hole in a decayed birch stump and proceeded to carry out pieces of the soft pulpy wood to drop them some distance away.

The birch stump was located where the spruce swamp merged with poplars at the foot of a sand ridge. It had broken off about fifteen feet above the ground and the entrance was about ten feet above the ground where the stump was about four or five inches in diameter.

After five or six trips it flew away. The excavation extended for about a foot down. Later in the season the bird completed its nest and laid eggs.

PATTERNS OF JOY

(Continued from page 27)

so many birds in full song even in July; everything gathering joy only to dispense it with prodigal hand as did our pioneers of long ago.

No need for Omar's "jug of wine, the loaf of bread" this golden year for the Prairie is a "Paradise enow".

A Prairie Slouch

By J. H. GRANT

All the long, hot day we travelled in the teeth of a chinook that sent tumble weeds bounding over the searing plain and whipped grass tops and weed seeds into our blistering faces — and at evening arrived at a tiny lake on the edge of the scrubland.

The red sun sank behind a hill and down with it went the wind. Air, cool, soothing and laden with the smell of water crept out from the slough which mirrored dark-green clumps of choke-cherry bush and one patch of crimson sky. A pair of muskrats swam leisurely, leaving in their wake twin "v's" of tiny ripples. A robin sang from a silverberry bush, his inimitable liquid notes mingling with the murmur of the streamlet that fed the pond. From her nest on a cottonwood stump, a mourning dove crooned her plaintive lay, and from somewhere in the range lands beyond, faint and faraway came the lowing of cattle.

As dusk settled, the oxen, full-fed on the lush grasses of the lake shore, lay down by the wagon, drawing deep contented breaths and ruminating peacefully. We lay on the warm sand, the fresh vapor-laden air balm to our wind-chafed lips and nostrils, and the mellow gurgling call of the bittern lulling us to rest.

THE SAPSUCKER

(Continued from page 31)

while Mom came in carrying him. He had fallen off the wall and was lying on the ground. He was so light we figured right away he was half-starved. We got some warm milk, mixed syrup with it and tried to feed the sapsucker with an eyedropper. He wouldn't drink he just spit the milk back. We made the sapsucker as comfortable as we could.

Within about one hour our sapsucker was dead. I guess hunger had made him so tame.

The Secretary's Corner

ANNUAL MEETING OF THE SASKATCHEWAN NATURAL HISTORY SOCIETY 1955, REGINA, OCTOBER 29



The meeting place
Auditorium of the new museum

Sask. Govt. Photo

Our 1955 Annual Meeting is being held in the Museum of Natural History, corner of Albert Street and College Avenue, Regina. The Regina Natural History Society, and the Museum of Natural History will act as hosts for the day, and it is hoped that a good representation of our membership will be able to attend. Registration will begin at 9 a.m. MST in the lobby of the Museum; morning, afternoon and evening sessions will be held in the new museum.

During the business meeting new officers and directors will be elected. You may help the nominations committee by sending in the names of suitable people for the executive. Each name should be accompanied by a written statement of the interests and qualifications of the member suggested.

There will be discussions of the aims and policies of the society. We would appreciate your sending copies of resolutions to the secretary, 2335 Athol Street, Regina, so that the program committee will be able to allot the necessary time to business matters. The sooner you send in resolutions, the better.

Please let the secretary know if you plan to attend the annual meeting. This get-together is your opportunity to meet your fellow naturalists, and to further the work of the Blue Jay, so we hope you can come to Regina on Saturday, October 29.

A43937

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Published quarterly by
THE SASKATCHEWAN NATURAL HISTORY SOCIETY
Edited by Lloyd T. Carmichael



Sask. Govt. Photo

Heron habitat case Saskatchewan Provincial museum of natural history.

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